103d Congress. 2d Session - - - - - - - - - - - - House Document 103-231

1994 ANNUAL REPORT OF THE BOARD OF TRUSTEES OF THE FEDERAL OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS

COMMUNICATION

FROM

THE BOARD OF TRUSTEES, FEDERAL OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS

TRANSMITTING

THE 1994 ANNUAL REPORT OF THE BOARD OF TRUSTEES OF THE FEDERAL OLD-AGE AND SURVIVORS INSURANCE AND THE FEDERAL DISABILITY INSURANCE TRUST FUNDS, PURSUANT TO SECTION 201(c)(2) OF THE SOCIAL SECURITY ACT, AS AMENDED

APRIL 12, 1994.—Referred to the Committee on Ways and Means and ordered to be printed

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U.S. GOVERNMENT PRINTING OFFICE

78-187 WASHINGTON :

LETTER OF TRANSMITTAL

BOARD OF TRUSTEES OF THE
FEDERAL OLD-AGE AND SURVIVORS INSURANCE
AND DISABILITY INSURANCE TRUST FUNDS,
Washington, D.C., April 11, 1994

HONORABLE Thomas S. Foley
Speaker of the House of Representatives
Washington, D.C.

HONORABLE Albert Gore, Jr.
President of the Senate
Washington, D.C.

GENTLEMEN: We have the honor of transmitting to you the 1994 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance Trust Fund and the Federal Disability Insurance Trust Fund (the 54th such report), in compliance with section 201(c)(2) of the Social Security Act.

Respectfully,

Lloyd M. Bentsen, *Secretary of the Treasury, and Managing Trustee of the Trust Funds.*

Robert B. Reich, *Secretary of Labor, and Trustee.*

Donna E. Shalala, *Secretary of Health and Human Services, and Trustee.*

Stanford G. Ross, *Trustee.*

David M. Walker, *Trustee.*

Shirley S. Chater, *Commissioner of Social Security, and Secretary, Board of Trustees.*

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A. INTRODUCTION

The Old-Age, Survivors, and Disability Insurance (OASDI) program in the United States provides protection against the loss of earnings due to retirement, death, or disability. The OASDI program consists of two separate parts which pay monthly benefits to workers and their families. Under the Old-Age and Survivors Insurance (OASI) program, monthly benefits are paid to retired workers and their families, and to survivors of deceased workers. Under the Disability Insurance (DI) program, monthly benefits are paid to disabled workers and their families.

Under the Social Security Act, a Board of Trustees is established to oversee the financial operations of the Federal Old-Age and Survivors Insurance Trust Fund and the Federal Disability Insurance Trust Fund. The Board is composed of five members, three 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, and the Secretary of Health and Human Services. The other two members are appointed by the President and confirmed by the Senate to serve as public representatives: Stanford G. Ross and David M. Walker are currently serving 4-year terms that began on October 2, 1990.

The Social Security Act requires that the Board, among other duties, report annually to the Congress on the financial and actuarial status of the OASI and DI Trust Funds. This annual report, for 1994, is the 54th such report.

B. HIGHLIGHTS

The more important developments since the 1993 Annual Report was issued are shown below:

- During calendar year 1993, OASDI benefits amounting to $302.4 billion were paid to retired and disabled workers and their families, and to survivors of deceased workers.
- The number of persons receiving monthly OASDI benefits at the end of December 1993 was 42.2 million.
- In 1993, an estimated 135 million people worked in jobs covered by the OASDI program and paid OASDI contributions on their earnings.
- Income to the combined OASI and DI Trust Funds amounted to $355.6 billion in calendar year 1993, and expenditures were $308.8 billion. The assets of the combined funds, therefore, increased by $46.8 billion, from $331.5 billion at the end of December 1992 to $378.3 billion at the end of December 1993.
- Assets at the beginning of the year, as a percentage of expenditures during the year, increased from 107 percent at the beginning of 1993 to an estimated 116 percent at the beginning of 1994, for the combined OASI and DI Trust Funds.
- Interest earnings on the invested assets of the combined OASI and DI Trust Funds were $27.9 billion in calendar year 1993. This represented an effective annual interest rate of 8.3 percent, earned by the combined assets during calendar year 1993. During the same period, the average interest rate on new securities purchased by the trust funds was 6.1 percent.
- Administrative expenses for the OASDI program were $3.0 billion in calendar year 1993, or about 1.0 percent of benefit payments in the year.
- An automatic benefit increase of 2.6 percent, reflecting the lowest rate of increase in the cost of living since 1986, became effective for December 1993. The OASDI contribution and benefit base was increased from $57,600 for 1993, to $60,600 for 1994.

The major findings of this report are summarized below:

- In the short range, the assets of the OASI and DI Trust Funds,

if combined, would be expected to increase from the current level of $378.3 billion, or 116 percent of annual expenditures, to $1,048 billion, or 197 percent of annual expenditures, at the beginning of the year 2003. This expected growth is based on assumed economic and demographic changes that are considered to be the most likely to occur and that are described later in this report as "intermediate" assumptions. However, the OASI and DI programs are financed by separate contribution rates specified in the law. As a result, separate estimates are required for each trust fund.

- The OASI Trust Fund is expected to increase rapidly during the next 10 years, from 129 percent of annual expenditures at the beginning of 1994 to about 259 percent of annual expenditures at the beginning of the year 2003, based on the intermediate assumptions.

- The assets of the DI Trust Fund are expected to decline steadily from $9.0 billion at the end of 1993 until the fund is exhausted in 1995, unless corrective legislation is enacted promptly to strengthen the financing of the DI program. As noted elsewhere in this report, the Board of Trustees is again recommending a reallocation of contribution rates between the OASI and DI Trust Funds to remedy the expected financial shortfall in the DI Trust Fund.

- In the long range, income and expenditures are generally expressed as a percentage of the total amount of earnings subject to taxation under the OASDI program (referred to as "taxable payroll"). Summarized income and cost rates over the 75-year long-range period are determined through present-value calculations and by taking into account actual beginning fund balances and targeted ending fund balances (or reserves) of 100 percent of annual expenditures.

  Overall, for the period 1994-2068, the difference between the summarized income and cost rates for the OASDI program is a deficit of 2.13 percent of taxable payroll based on the intermediate assumptions. This is a substantial increase over the estimated deficit of 1.46 percent of taxable payroll shown in the 1993 Annual Report for the period 1993-2067, based on the intermediate assumptions. The increase in the deficit is attributable to a number of factors, including an increase in the estimated level of future average benefits, a decrease in the assumed ultimate level of average real-wage gains in the future,

an increase in the assumed ultimate levels of disability incidence rates, and the change in the 75-year projection period to include the relatively large annual deficit for the year 2068.

- On a combined basis, the OASDI program is not in close actuarial balance over the next 75 years. In addition, the individual OASI and DI Trust Funds are not in close actuarial balance. These results are the same as those shown in the 1993 Annual Report.

- Income from OASDI payroll taxes represents 12.4 percent of taxable payroll—made up of the 6.2 percent tax rate paid by employees and a matching amount paid by their employers. (Self-employed workers pay OASDI taxes at the combined employee-employer rate.) Since these tax rates are not scheduled to change in the future under present law, OASDI payroll tax income as a percentage of taxable payroll remains constant at 12.4 percent.

  Before 1994, up to one-half of a beneficiary's OASDI benefits were subject to Federal income taxation, for beneficiaries above certain fixed income thresholds. Beginning with benefits paid in 1994, up to 85 percent may be subject to taxation. The income tax revenues that result from taxing up to one-half of the benefits are transferred to the OASI and DI Trust Funds and are currently equivalent to about 0.2 percent of taxable payroll. (The additional revenues resulting from taxing more than one-half of OASDI benefits are transferred to the Hospital Insurance (HI) Trust Fund.) Adding the OASDI income from the taxation of benefits to the income from payroll taxes yields a total "income rate" of 12.6 percent. This rate is estimated to increase gradually to 13.3 percent of taxable payroll by the end of the 75-year projection period based on the intermediate assumptions. The growth is attributable, in part, to increasing proportions in both the number of beneficiaries and the amount of their benefits subject to taxation in the future. These proportions will increase because the income thresholds, above which benefits are taxable, are not indexed to future increases in average prices or average income.

- OASDI expenditures for benefit payments and administrative expenses currently represent about 11.6 percent of taxable payroll. This "cost rate" is estimated to remain below the corresponding income rate for the next 19 years, based on the intermediate assumptions. With the retirement of the "baby-

boom" generation starting in about 2010, OASDI costs will increase rapidly relative to the taxable earnings of workers. By the end of the 75-year projection period, the OASDI cost rate is estimated to reach 18.9 percent under the intermediate assumptions, resulting in an annual deficit of about 5.6 percent.

- Under the intermediate assumptions, the excess of OASDI tax revenues over expenditures for the next 19 years, together with interest earnings on the trust funds, will result in a rapid accumulation of assets for the combined OASI and DI Trust Funds during this period. However, total income is estimated to fall short of expenditures beginning in 2019 and continuing thereafter, under the intermediate assumptions. In this circumstance, trust fund assets would be redeemed to cover the difference. The assets of the combined OASI and DI Trust Funds are estimated to be depleted under present law in 2029 based on the intermediate assumptions.

  The assets of the trust funds are generally invested in special securities of the U.S. Treasury. The initial accumulation of assets will result in a substantial cash flow from the trust funds to the general fund of the Treasury, and the amount of special securities held by the combined trust funds will increase. The subsequent redemption of securities will cause this cash flow to reverse. The magnitude and pattern of these cash flows have important public policy and economic implications that extend beyond the operation of the OASDI program itself.

- Because the OASDI program is not in close actuarial balance, the long-range deficits of both the OASI and DI Trust Funds should be addressed. It is recommended that the Advisory Council on Social Security conduct an extensive review of Social Security financing issues and develop recommendations for restoring the long-range actuarial balance of the OASDI program.

C. TRUST FUND FINANCIAL OPERATIONS

The various sources of income to the OASDI program, and categories of expenditures, can be illustrated by reference to the actual transactions during calendar year 1993. The following table summarizes these transactions.

Type of income or expenditure	Amount in calendar year 1993 (in billions)		
	OASI	DI	OASDI
Total income	$323.3	$32.3	$355.6
Payroll taxes	290.9	31.2	322.1
Taxation of benefits	5.3	0.3	5.6
Interest	27.0	0.8	27.9
Total expenditures	273.1	35.7	308.8
Benefit payments	267.8	34.6	302.4
Railroad Retirement financial interchange	3.4	0.1	3.4
Administrative expenses	2.0	1.0	3.0

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

1. Income

Most OASDI income consists of the taxes paid by employees, employers, and the self-employed on earnings covered by the OASDI program. These taxes (also called contributions) represent a portion of the payroll taxes collected under the Federal Insurance Contributions Act (FICA) and the Self-Employment Contributions Act (SECA). The balance of the FICA and SECA contributions are used to finance the HI program, commonly referred to as "Part A" of Medicare. The taxes for the OASDI program are paid on earnings up to a specified maximum annual amount (the "contribution and benefit base"). Prior to 1994, HI taxes were also paid on earnings up to a maximum amount each year. As a result of Public Law 103-66, HI taxes are now paid on total covered earnings, without limitation. The following table shows the OASDI contribution and benefit base and the allocation of the FICA and SECA tax rates by program for 1994.

For 1994...	OASI	DI	OASDI	HI	Total for OASDI and HI
Maximum taxable amount of earnings	$60,600	$60,600	$60,600	—	—
Tax rate for employees and employers, each (in percent)	5.60	0.60	6.20	1.45	7.65
Tax rate for self-employed persons (in percent)	11.20	1.20	12.40	2.90	15.30

The tax rates for OASDI and for HI are not scheduled to change from their current values under present law. The maximum amount of earnings subject to OASDI taxes increases automatically each year, based on the increase in the average wage for all workers. In calendar year 1993, OASDI payroll tax income amounted to $322.1 billion, representing 91 percent of the total income received under the OASDI program during the year.

Beneficiaries whose "adjusted gross income" exceeds certain threshold amounts must pay income taxes on a portion of their annual OASDI benefits. The revenue from this requirement and related provisions is credited to the OASI and DI Trust Funds and totaled $5.6 billion in 1993.

The final source of income to the trust funds is from interest on the invested assets of the funds. By law, these investments must be in interest-bearing securities of the U.S. Government or in securities guaranteed by the United States. Interest from investments in 1993 amounted to $27.9 billion.

2. Expenditures

In 1993, benefit payments totaling $302.4 billion were made to retired and disabled workers and their families, and to survivors of deceased workers. Such payments represent 98 percent of all expenditures by the OASDI program. An additional $3.4 billion was transferred from the OASI and DI Trust Funds to the Railroad Retirement program in 1993, under provisions of the law requiring a financial interchange between the two programs. The cost of administering the OASDI program in 1993 was $3.0 billion, or about 1.0 percent of total benefits paid during the year.

3. Trust Fund Assets

In 1993, total income was $355.6 billion and total expenditures were $308.8 billion. The assets of the OASI and DI Trust Funds therefore increased by a net total of $46.8 billion during the year, from $331.5 billion to $378.3 billion. The invested assets of the trust funds are

backed by the full faith and credit of the U.S. Government, in the same way as other public-debt obligations of the United States.

If income to a trust fund is inadequate to defray expenditures, the fund's assets serve as a contingency reserve to cover the shortfall temporarily. For example, the expenditures of the DI Trust Fund exceeded income to the fund in 1993, necessitating a redemption of assets to cover the difference. In the event of recurring shortfalls, the availability of trust fund assets allows time for the enactment and implementation of legislation to restore financial stability to the program.

Conversely, when program income exceeds expenditures, the trust fund serves as a vehicle to help fund a portion of the program's accruing financial obligations in advance. In particular, as invested assets continue to increase over the next 20 to 30 years, interest earnings will become a larger share of total trust fund income. In 1993, interest income to the combined OASI and DI Trust Funds represented 7.8 percent of total OASDI income. On a combined basis, interest income in 2003 would represent an estimated 10.8 percent of total income.

D. INTRODUCTION TO ACTUARIAL ESTIMATES

The financial and actuarial status of the OASDI program is traditionally evaluated for both the "short range" (the next 10 years) and the "long range" (the next 75 years). The various income and expenditure items described in the previous section are estimated separately, and then combined to form estimates of the future level of trust fund assets.

A period of 75 years is used to evaluate the long-range actuarial status of the OASDI program in order to obtain the full range of financial commitments that will be incurred on behalf of all current program participants. For example, a group of workers now entering the labor force at age 22 will work and pay OASDI taxes for the next 45 years before reaching age 67. At age 67, the surviving workers may retire and begin to receive full benefits (i.e., not reduced for early retirement). Some of these workers might live and receive benefits for as long as 30 years or more. Thus, a 75-year projection period will include the entire working and retired life span of the great majority of workers now contributing to the program, as well as those now receiving benefits.

Because of the inherent uncertainty in estimates for as many as 75 years into the future, projections are shown in this report under three alternative sets of assumptions regarding future economic and demographic trends. Designated as alternatives I, II, and III, the assumptions range from low cost (alternative I) to high cost (alternative III), with alternative II representing the intermediate cost assumptions. The low cost set is more optimistic from the standpoint of OASDI financing and the high cost set is more pessimistic. In the tables in this report, the intermediate estimates, which the Trustees regard as the "best estimates," will be shown first followed by the low cost and high cost estimates.

From the estimated income, expenditure, and asset amounts, a number of different measures are calculated for use in evaluating the financial status of the program. Because of the difficulty in comparing dollar values from one period to another, these measures are generally based on relative scales (although financial operations in nominal and inflation-adjusted dollar amounts are also available). These measures include (1) the annual amounts of future income and outgo as a percentage of the amount of earnings subject to the OASDI

payroll tax, (2) the annual differences between these income and outgo figures, and (3) comparisons of these figures summarized over various periods. The level of trust fund assets relative to annual expenditures and the year in which the trust fund is projected to be exhausted are additional measures for evaluating the financial status of the program. Careful review of these measures provides a reasonably complete picture of the financial outlook for the OASDI program.

The program is also subject to two explicit tests of financial status (see section II.F)—a short-range test and a long-range test. The purpose of these tests is to provide objective criteria for determining whether or not the projected financial status of the OASDI program is considered satisfactory in each time period. The tests help highlight the need for corrective action when they are not met.

As with the analysis of any complex subject, these summary tests should be used in conjunction with a full understanding of the year-by-year patterns, trends, and other financial characteristics revealed by the underlying actuarial projections.

E. ECONOMIC AND DEMOGRAPHIC ASSUMPTIONS

Actual future income from OASDI payroll taxes and other sources, and actual future expenditures for benefits and administrative expenses, will depend upon a large number of factors: the size and composition of the population which is receiving benefits, the level of future benefit amounts, the size and characteristics of the work force covered under OASDI, and the level of workers' earnings in the future. These factors will depend in turn upon future marriage and divorce rates, birth rates, death rates, migration rates, labor force participation and unemployment rates, disability incidence and termination rates, retirement age patterns, productivity gains, wage increases, cost-of-living increases, and many other economic and demographic circumstances affecting the OASDI program.

While it is reasonable to assume that actual trust fund experience will fall within the range defined by the three alternative sets of assumptions used in this report, no definite assurance can be given that this will occur because of the uncertainty inherent in projections of this type and length. 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 general range of future program experience.

The assumptions vary, in most cases, from year to year during the first 5 to 25 years before reaching their ultimate assumed values for the remainder of the 75-year projection period. The following table summarizes the ultimate values assumed for the key economic and demographic factors underlying the actuarial estimates shown in this report. These ultimate values apply for years after 2015, with the exception of life expectancy which is assumed to continue improving throughout the projection period.

Ultimate assumptions	Intermediate	Low Cost	High Cost
Percentage change in:			
Average wage in covered employment	5.0	4.5	5.5
Consumer Price Index (CPI)	4.0	3.0	5.0
Real-wage differential (percent)	1.0	1.5	0.5
Unemployment rate (percent)	6.0	5.0	7.0
Interest rate (percent)	6.3	6.0	6.5
Fertility rate (children per woman)	1.9	2.2	1.6
Life expectancy at birth in 2070 (combined average for men and women, in years)	80.9	78.0	84.8
Annual net immigration (in thousands)	850.0	1,100.0	700.0

These key assumptions for the 1994 Annual Report are similar to the assumptions used in the 1993 report. The most significant change in an ultimate economic or demographic assumption is a decrease in the annual rate of change in the real average wage. The assumed real-wage differential is reduced from 1.1 percent in the 1993 report to 1.0 percent for the intermediate set of assumptions in this report, from 1.7 to 1.5 percent for the low cost set of assumptions, and from 0.6 to 0.5 percent for the high cost set of assumptions. These reductions in the ultimate assumed rates of growth in the average wage reflect the expectation that many of the factors which have contributed to slower growth over the past 30 years (0.8 percent per year, on average, from 1962 to 1992) than for the prior 10 years (2.6 percent per year, on average, from 1952 to 1962) are likely to continue for the foreseeable future.

Revisions of other economic and demographic assumptions for the early years of the projection period, based on data collected since the 1993 report, had little effect on these ultimate annual rates, with the exception of life expectancy. Data obtained since last year's report indicate that life expectancy in recent years was somewhat higher than was estimated a year ago. Projected values for life expectancy through the year 2070 are thus somewhat higher than estimated a year ago because the assumed ultimate rate of improvement in mortality was not changed for this report.

These assumptions reflect a careful assessment of past data and future prospects. No major changes in ultimate economic or demographic assumptions, other than those made for the real-wage differential and life expectancy, were deemed necessary to ensure that the financial projections continue to be based on the most plausible range of economic and demographic conditions. Other changes in assumptions and methods reflected in the estimates in this report are discussed in section II.F.

F. SHORT-RANGE ACTUARIAL ESTIMATES

The financial status of the OASDI program during the next 10 years (1994-2003) is measured by the estimated level of trust fund assets. Because of inflation, economic growth, and growth in the OASDI program, asset levels expressed in nominal dollar amounts are not comparable over long periods of time. For this reason, it is more informative to consider a relative measure of the program's financial condition.

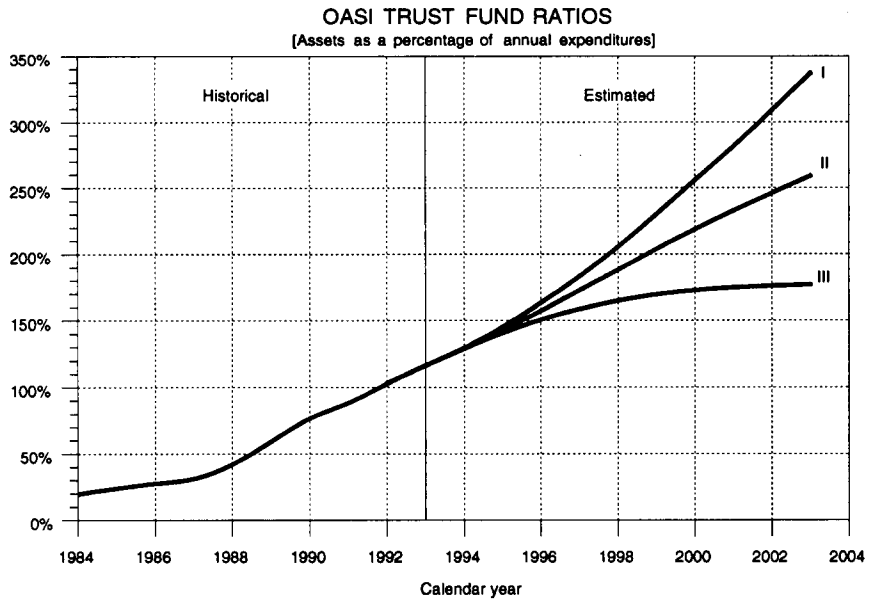
For example, OASDI assets at the beginning of calendar year 1994 amounted to $378 billion, while assets at the beginning of 1960 were $22 billion. The asset level in 1994 would be sufficient to cover almost 14 months of expenditures in the absence of other income. Assets in 1960, although much smaller in nominal dollars, could have covered about 22 months of expenditures and thus represented a somewhat stronger contingency reserve.

The ratio of trust fund assets at the beginning of a year to expenditures during the year is termed the "trust fund ratio." This ratio serves as the primary measure of the fund's financial adequacy in the short range. It is also used when applying an explicit test of short-range financial adequacy.

1. OASI Trust Fund

The chart shown on the following page presents historical trust fund ratios for the OASI Trust Fund in 1984-93 and estimated ratios for 1994-2003 based on the alternative sets of assumptions.

As shown in the chart, the OASI trust fund ratio is estimated to increase from 129 percent at the beginning of 1994 to 259 percent by 2003, based on the intermediate (alternative II) assumptions. The ratio is also estimated to increase during the next 10 years under both the low cost (alternative I) and high cost (alternative III) assumptions. Because OASI assets are estimated to exceed 100 percent of annual expenditures throughout the next 10 years, the OASI Trust Fund meets the requirements of the Trustees' formal test of short-range financial adequacy. (This test is described in detail in the section entitled "Actuarial Estimates" later in this report.) Thus, the financing scheduled under present law for the OASI Trust Fund is

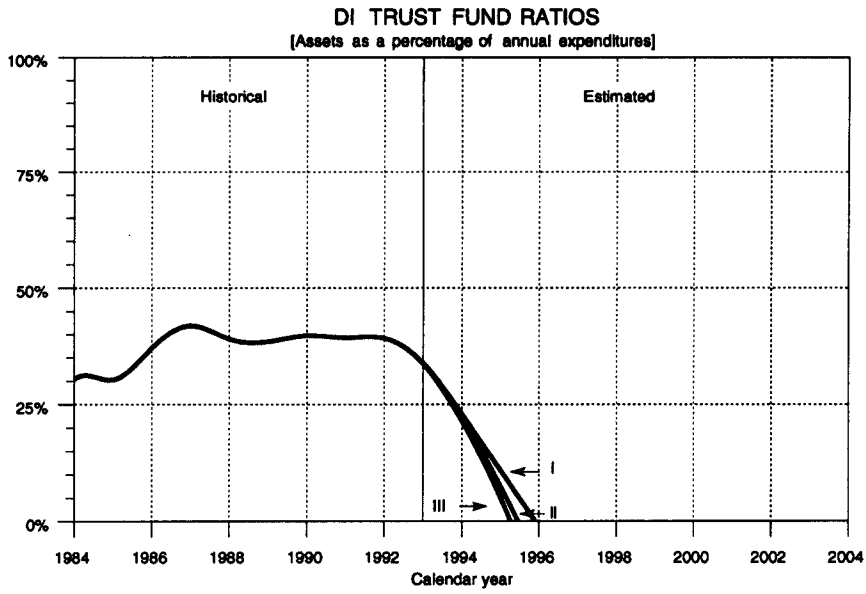


considered fully adequate to meet future expenditures over this period and to provide for an adequate contingency reserve.

2. DI Trust Fund

The DI Trust Fund, on the other hand, is *not* adequately financed in the short range. At the beginning of 1994, the assets of the DI Trust Fund represented only 23 percent of estimated expenditures in 1994. As shown in the next chart, without corrective legislation the assets of the DI Trust Fund will be exhausted in 1995.

The imminent exhaustion of the DI Trust Fund was reported in 1992 and 1993 (and warnings of possible depletion were made as early as 1985). The financial problem reflects an increasing trend since 1982 in the proportion of workers who are awarded disability benefits and a decreasing trend since 1970 in the proportion of beneficiaries whose disability benefits terminate as a result of recovery, death, or attainment of age 65. In particular, the annual number of new disability awards has increased very rapidly in the last several years,

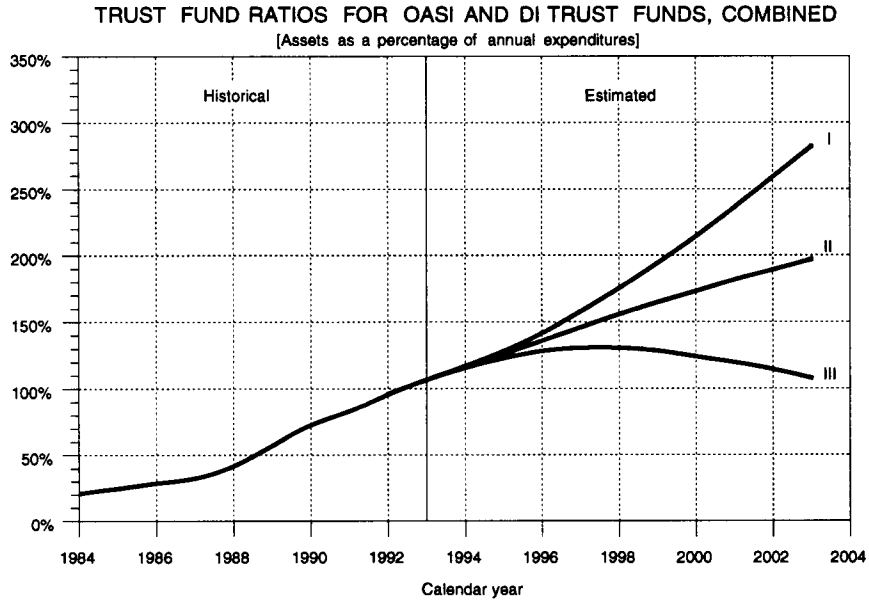


from 415,000 in 1988 to more than 640,000 in 1992. In 1993, benefit awards declined slightly. The backlog of pending disability applications increased substantially, however, indicating that there was a delay in awards from 1993 to later years, rather than a true decrease.

Because DI assets are expected to be depleted in the immediate future, the DI Trust Fund does not satisfy the short-range test of financial adequacy. It is imperative that legislative action be taken as soon as possible this year to strengthen the financial position of the DI program. As noted in other sections of this report, the Board of Trustees recommended such action to the Congress in 1992 and again in 1993. The DI Trust Fund will be exhausted in 1995 and benefit payments will cease unless Congressional action takes place.

3. OASI and DI Trust Funds, Combined

The following chart summarizes the trust fund ratio for the OASI and DI Trust Funds, combined, in the recent past and estimates for the next 10 years.



As shown, the trust fund ratio for OASI and DI on a combined basis is estimated to increase from 116 percent at the beginning of 1994 to 197 percent by 2003, based on the intermediate assumptions. While the ratio would also increase throughout the 10-year period based on the low cost assumptions, it would begin to decline under the high cost assumptions (but would remain above 100 percent throughout the short range).

Because the trust fund ratio for the combined funds is estimated to remain above 100 percent under the intermediate assumptions, the combined funds meet the short-range test of financial adequacy. Thus, the imminent depletion of the DI Trust Fund could be avoided through a reallocation of tax rates between OASI and DI without jeopardizing the short-range financial status of the OASI Trust Fund. Such a reallocation would, however, worsen the long-range financial outlook for OASI.

G. LONG-RANGE ACTUARIAL ESTIMATES

The long-range financial estimates provided in this section generally relate to the OASI and DI Trust Funds on a combined basis. However, as the OASI and DI programs are legally separate, a final assessment of the financial status of these funds must be provided on a separate basis, as is done later in this section. More detailed estimates for these trust funds, both separately and combined, can be found in section II.F.2 of this report.

Each year estimates of the financial and actuarial status of the OASDI program are prepared for the next 75 years. Although financial estimates for periods as long as 75 years are inherently uncertain, the results can provide valuable information for use by policymakers. In particular, such estimates can indicate whether the program—as seen from today's vantage point—is considered to be in satisfactory financial condition.

As mentioned previously, a number of different measures are useful in evaluating the financial status of the trust funds over the next 75 years. In addition to the actuarial balance and the trust fund ratio, emphasis is placed on the relationship between the levels of future tax income and future expenditures for each year (relative to the amount of earnings subject to the OASDI payroll tax). The year-by-year patterns of this relationship are of particular interest.

In addition to the presentation of long-range estimates, a specific test of the program's long-range financial status is applied. This test is referred to as the test for long-range "close actuarial balance."

1. Long-Range Income Rates, Cost Rates, and Annual Balances

The following chart compares past and estimated future OASDI income (from payroll taxes on covered earnings and income taxes on OASDI benefits) with OASDI expenditures (for benefits and administrative expenses). Included are historical data for the past 10 calendar years (1984-1993) and estimates for the 75-year long-range projection period (1994-2068) under the three alternative sets of assumptions. The chart includes values through 2070, as do many of the long-range tables in the Actuarial Analysis section, in which values are presented for every fifth year of the long-range period and

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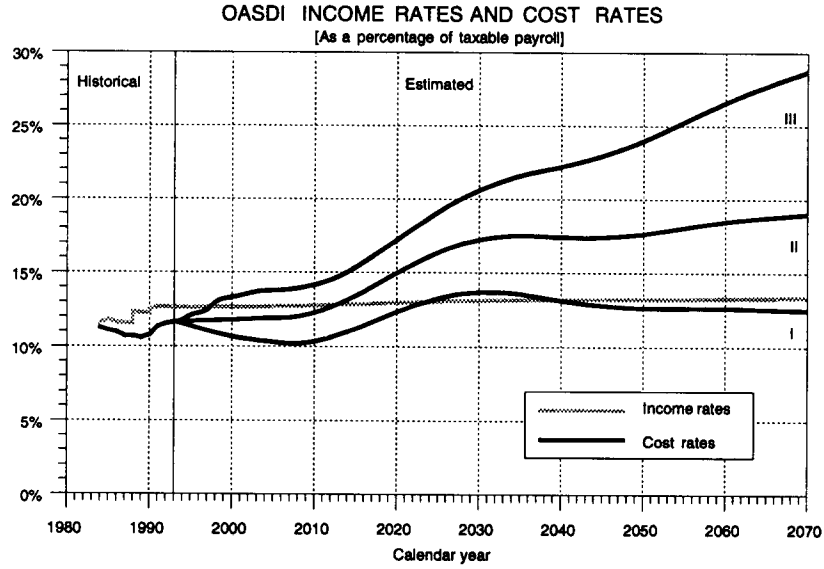
continue through 2070, thereby encompassing the full 75-year projection period which ends with 2068. These income and expenditure amounts are shown relative to the earnings in covered employment that are taxable under the OASDI program—referred to as "taxable payroll." The ratio of tax income to taxable payroll is called the "income rate" and the ratio of expenditures to taxable payroll is the "cost rate."



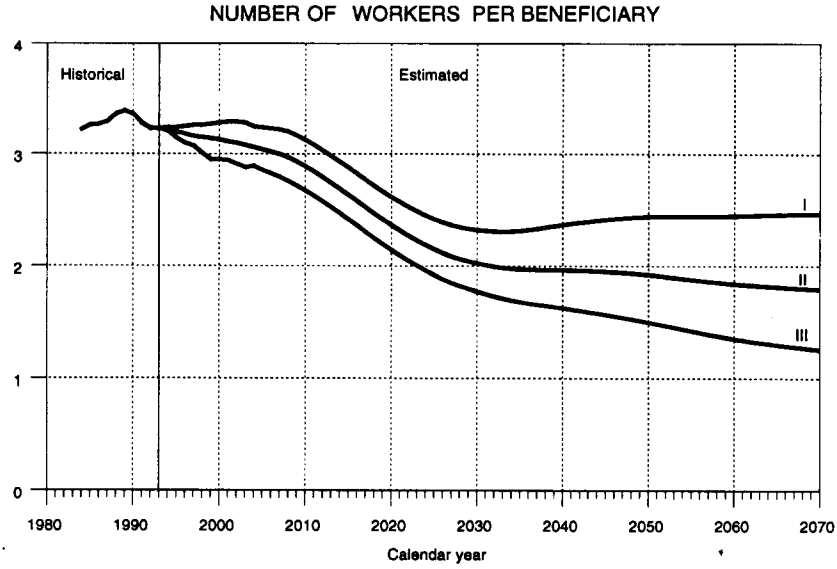
For calendar year 1994, the income rate for the OASDI program is estimated to be about 12.63 percent of taxable payroll. This rate is made up of the combined tax rate payable by employees and employers, 12.40 percent, plus the revenue from the income taxation of OASDI benefits, equivalent to 0.23 percent of taxable payroll. Since OASDI payroll tax rates are not scheduled to change in the future under present law, payroll tax income as a percentage of taxable payroll remains constant at about 12.40 percent. Income from the taxation of benefits will gradually increase, primarily because a greater proportion of beneficiaries will become subject to taxation. Thus, the income rate is projected to increase somewhat from its current level, reaching about 13.34 percent of taxable payroll by the year 2070. The income rate projection shown in the chart is based on the intermediate set of assumptions (alternative II) only; the projections

under the low cost and high cost sets of assumptions (alternatives I and III, respectively) are very similar.

As the chart indicates, the pattern followed by the estimated cost rates is much different. Costs as a percentage of taxable payroll are estimated to rise slowly for about 15 years and then to increase rapidly for about the next 20 years. Thereafter, cost rates are estimated to grow less rapidly (or to decline somewhat, in the case of alternative I). By the year 2070 the cost rate is estimated to have reached 12.49 percent, 19.00 percent, and 28.72 percent under alternatives I, II, and III, respectively.

The primary reason that the estimated OASDI cost rate increases rapidly after about 2010 is that the number of beneficiaries is projected to increase more rapidly than the number of covered workers. Because the cost rate expresses expenditures (primarily payments to beneficiaries) as a percentage of taxable payroll (the taxable earnings of covered workers), there is a close relationship between the demographic characteristics of the population and the OASDI cost rate.

The following chart shows the estimated number of covered workers per OASDI beneficiary. In 1993, there were about 3.2 workers for every beneficiary. As indicated, this ratio is expected to decline substantially in the future under all three sets of assumptions. Most of this decline will occur as the relatively large number of persons born during the "baby boom" (from the end of World War II through the mid-1960s) reaches retirement age and begins to receive benefits. At the same time, the relatively small number of persons born during the subsequent period of low fertility rates will comprise the labor force. Between 2030 and 2050, the number of workers per beneficiary is relatively stable as the "baby-boom" generation diminishes in size. After the year 2050, this ratio will continue to decline at a slower pace for the intermediate and high cost projections, reflecting the increasing numbers of beneficiaries due to assumed increases in life expectancy. Based on the low cost assumptions, a slow increase in this ratio is projected to occur after 2050. By the end of the 75-year projection period, the number of workers per beneficiary is projected to decline to 2.5, 1.8, and 1.3 under the low cost (alternatives I), intermediate (alternative II), and high cost (alternative III) assumptions, respectively.



The difference between the income rate and the cost rate in a given year is referred to as the "annual balance" for that year. The estimated pattern of the OASDI annual balance depends significantly on the economic and demographic conditions assumed to occur in the future. Income rates are estimated to exceed cost rates for the next 29, 19, and 4 years, under alternatives I, II, and III, respectively, resulting in positive annual balances. Thereafter, under the intermediate assumptions, the annual deficit would rise rapidly, reaching 2 percent of taxable payroll before 2020 and 5.67 percent in the year 2070. Under alternative I, a temporary period of deficits (from 2023 through 2041) would be followed by a return to small positive balances lasting throughout the remainder of the projection period. Under adverse conditions, as assumed in alternative III, the deficit would grow very rapidly, to nearly 15 percent of taxable payroll by the year 2070.

2. Summarized Income Rates, Cost Rates, and Balances

It is useful to consider the income and cost rates on a summarized basis over the three 25-year subperiods that make up the 75-year projection period. For this purpose, the annual income rates are summarized by calculating the present value of future tax income

for the period in question, and expressing it as a percentage of the present value of future taxable payroll for that period. ("Present values" are used in financial analysis to calculate the lump-sum equivalent value, at a particular point in time, of a series of future amounts or transactions. See the Glossary for additional information.) Similarly, a summarized cost rate is calculated, based on the present value of future expenditures as a percentage of the present value of future taxable payroll. The following table shows these summarized amounts for the OASDI program for the three 25-year subperiods.

	Income rate	Cost rate	Balance
Intermediate:			
1994-2018	12.70	12.32	0.39
2019-2043	13.10	16.78	-3.69
2044-2068	13.26	18.14	-4.88
Low Cost:			
1994-2018	12.66	10.80	1.86
2019-2043	12.94	13.24	-.29
2044-2068	13.00	12.66	.33
High Cost:			
1994-2018	12.75	13.87	-1.13
2019-2043	13.26	20.29	-7.03
2044-2068	13.62	25.42	-11.80

A surplus is shown under the intermediate alternative II assumptions for the first subperiod only; thereafter, the program is projected to experience deficits, for the reasons outlined previously. Under the low cost alternative I assumptions, summarized tax income would exceed summarized costs for all but the second 25-year subperiod. (The less favorable outlook for the second subperiod occurs under the low cost assumptions because the "baby-boom" generation is retired essentially throughout this period, while the assumed higher ultimate fertility rates have not yet had their full effect on the estimated numbers of workers.) If the high cost conditions of alternative III are experienced, deficits would occur for all three subperiods.

To assess the overall financial balance for the long range, it is customary to calculate summarized income rates and cost rates for the full 75-year period. For this purpose, summarized income and cost rates are calculated on a present-value basis, as before. In addition, the summarized income rate is augmented by the value of trust fund assets on hand at the beginning of the period. Similarly, the summarized cost rate is adjusted to include an additional cost equivalent

to requiring that the trust funds at the end of the period hold assets equal to 100 percent of the following year's expenditures. The results of this calculation are shown in the following table.

	Income rate	Cost rate	Balance
Intermediate:			
1994-2068	13.24	15.37	–2.13
Low Cost:			
1994-2068	13.09	12.19	.90
High Cost:			
1994-2068	13.42	18.99	–5.57

The difference between the summarized income and cost rates is called the "actuarial balance" and ranges from a surplus of 0.90 percent of taxable payroll under the low cost assumptions to a deficit of 5.57 percent under the high cost assumptions. Based on the intermediate assumptions, an actuarial deficit of 2.13 percent is projected, representing the difference between the summarized income rate of 13.24 percent and the corresponding cost rate of 15.37 percent.

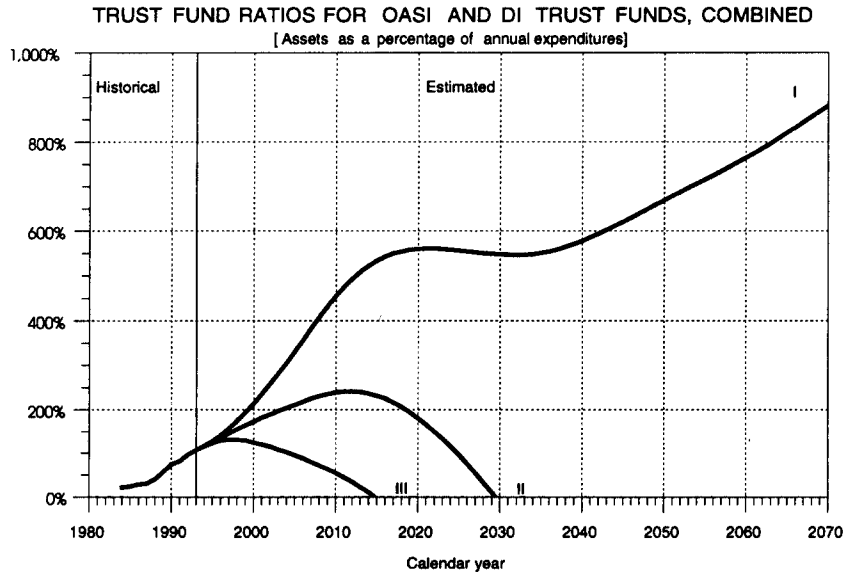
The size of the actuarial balance for any period represents a measure of the program's financial adequacy for that period. The actuarial balance can be interpreted as the amount of change which, if made to the payroll tax rates scheduled under present law for each year in the period, would bring the program into exact actuarial balance. For example, if the 75-year actuarial deficit of 2.13 percent under intermediate assumptions were addressed by raising scheduled tax rates by 1.07 percent for employees and employers, each, and by 2.14 percent for the self-employed, then OASDI assets at the beginning of 1994, together with income from payroll taxes, interest, and other sources, would be just sufficient to meet all expenditures for the period and leave a trust fund level at the end of the period equal to about 100 percent of the following year's expenditures. Of course, there are numerous other changes to tax rates or benefit provisions that could also result in the elimination of the long-range actuarial deficit.

The 75-year actuarial balance is a convenient and widely used measure of the OASDI program's overall financial status. It is important to remember, however, that this summary measure reflects the combined effects of several very different periods, as previously described. Thus, while the use of summary measures such as the actuarial balance is often convenient, such measures should not be used as a

substitute for a more complete understanding of the underlying year-by-year outlook.

3. Long-Range Projection of Trust Fund Assets

As noted previously, the total income of the OASDI program currently exceeds total expenditures by a substantial margin. As a result, the assets of the combined trust funds are increasing rapidly. Under the intermediate alternative II assumptions, tax income is expected to exceed expenditures for about 12 years after the turn of the century, when the cost of the program will have started to increase with the retirement of the "baby-boom" generation. Thereafter, the tax rates scheduled in present law are expected to be insufficient to cover program expenditures and it will be necessary to use interest earned by the combined OASI and DI Trust Funds to make up the shortfall. Total income, including interest earnings, is expected to exceed expenditures through about 2018. Thereafter, it will be necessary to redeem assets to make up the shortfall. The resulting pattern of combined OASI and DI assets, expressed as a percentage of annual expenditures, is illustrated in the following chart under each of the three alternative sets of assumptions.



Overview

At the beginning of 1994, the combined assets of the OASI and DI Trust Funds represented about 116 percent of combined annual expenditures estimated for the year. Under alternatives I and II, this ratio would increase rapidly for at least the next 15 years. Based on the intermediate assumptions, assets would accumulate to a peak of 241 percent of expenditures in 2012, and would then decline steadily until exhaustion in the year 2029. Based on the intermediate estimates in last year's report, the peak fund ratio for the combined funds was estimated to be 298 percent and the year of exhaustion was estimated to be 2036. For OASI and DI, separately, the peak fund ratios based on the intermediate assumptions are 361 and 23 percent, respectively, in this year's report and 432 percent and 35 percent, respectively, in last year's report. The following table summarizes the projections in this year's report for OASI, DI, and the combined trust funds under the three sets of assumptions for the period 1994 through 2070.

	OASI	DI	Combined
Intermediate:			
Maximum trust fund ratio (percent)	361	23	241
Year attained	2014	1994	2012
Year of exhaustion	2036	1995	2029
Low Cost:			
Maximum trust fund ratio (percent)	1,014	23	882
Year attained	2070	1994	2070
Year of exhaustion	—	1995	—
High Cost:			
Maximum trust fund ratio (percent)	180	22	131
Year attained	2007	1994	1998
Year of exhaustion	2023	1995	2014

Trust fund assets are generally invested in special Treasury securities so that the excess of cash receipts over expenditures are borrowed from the trust funds by the general fund of the Treasury and used to help meet various Federal outlays. These securities are backed by the full faith and credit of the U. S. Government, the same as other public-debt obligations of the U. S. Government. The assets of the trust funds can be redeemed for cash at any time if required to meet program expenditures. The redemption of a Treasury security held by a trust fund requires that the Treasury transfer cash—obtained from another revenue source, such as income taxes or borrowing from the public—to the trust fund. Thus, the investment

operations of the trust funds result in various cash flows between the trust funds and the general fund of the Treasury.

Under the intermediate assumptions, the growth in OASDI assets during the next 19 years will result in a substantial net cash flow from the trust funds of amounts borrowed by the general fund. Thereafter, this cash flow is expected to reverse; as trust fund securities are redeemed to meet benefit payments and other expenditures, revenue from the general fund of the Treasury will be drawn upon to provide the necessary cash. (It should be noted that DI Trust Fund assets are estimated to continue the decline that began in 1992 and to become exhausted in 1995. Thus, in the absence of corrective legislation, all the securities held by the DI Trust Fund would need to be redeemed during this period. However, this redemption would be more than offset by new securities issued to the OASI Trust Fund through this period.) The accumulation and subsequent redemption of substantial trust fund assets has important public policy and economic implications that go well beyond the operation of the OASDI program itself. Discussion of these broader issues is not within the scope of this report.

4. Test of Long-Range Close Actuarial Balance

Because the OASI and DI programs, both separately and combined, have long-range actuarial deficits that are more than 5 percent of the corresponding summarized cost rates under the intermediate alternative II assumptions, they do not meet the requirements of the Trustees' formal test for long-range close actuarial balance. (This test is described in detail in the section entitled "Actuarial Estimates" later in this report.)

H. CONCLUSION

The OASI Trust Fund is expected to grow rapidly during the next 10 years from a current level of about 130 percent of annual outgo to more than 2.5 times annual outgo by the year 2003. Thus, the OASI Trust Fund meets the criteria for financial adequacy in the short range by a wide margin.

The DI Trust Fund, however, is not adequately financed. Outgo from the DI Trust Fund exceeded income in both 1992 and 1993. Without corrective legislation, the DI fund is expected to continue declining until it is exhausted in 1995. This is the same year of exhaustion that was estimated in the 1993 Annual Report.

The OASI and DI Trust Funds, if combined, would be adequately financed over the next 10 years, and for many years thereafter. At the beginning of 1994, the combined assets of the trust funds represented about 116 percent of combined expenditures for 1994. The combined funds are projected to continue to grow during the next 10 years, and for many years thereafter, under both the intermediate and low cost assumptions. However, while the assets of the combined funds, in nominal dollars, continue to grow under the high cost assumptions for the next 9 years, 1994 through 2002, the trust fund ratio of assets to annual expenditures begins to decline in 1998.

Although the combined trust funds are well financed over the next 10 years and are expected to continue growing, in nominal dollars, for about the next 25 years under the intermediate assumptions, the OASDI program is not in close actuarial balance over the next 75 years, based on these assumptions. The estimates indicate that the combined trust funds would be sufficient to enable the timely payment of benefits for about the next 35 years. Relative to annual expenditures, the combined trust funds would continue to grow during the next 18 years, reaching a peak of about 2.4 times annual expenditures. Considering each fund separately, the OASI Trust Fund would have sufficient funds for the next 42 years, but, as noted above, the DI Trust Fund would be exhausted in 1995, underscoring the urgent need for corrective legislation. On the basis of the high cost assumptions, the combined funds would be sufficient to enable timely payment of benefits for about the next 20 years. The DI fund by itself, however, would be exhausted early in 1995. Based on the low cost assumptions, the combined funds would continue to grow through-

out the next 75 years, and they would be sufficient to enable timely payment of benefits during all of the long-range period. However, even under the low cost assumptions, the DI fund would again be exhausted in 1995 without corrective legislation.

For each of the next 19 years, OASDI income from payroll taxes and income taxes on benefits is expected to exceed total expenditures based on the intermediate assumptions. Starting about 15 years from now, however, OASDI costs as a percentage of taxable payroll are projected to begin increasing rapidly as the "baby-boom" generation reaches retirement age. In contrast, the program's income from payroll taxes and income taxes on benefits will represent a relatively level percentage of taxable payroll.

Therefore, under the intermediate assumptions, the OASDI cost rate is projected to exceed the income rate from 2013 through the end of the projection period, with the shortfall reaching 5.58 percent of taxable payroll by 2068, the end of the 75-year projection period. Based on the less favorable conditions assumed for the high cost estimates, the crossover point would be reached in about 1998, and the shortfall would grow eventually to 14.53 percent of payroll by 2068. With more favorable conditions, such as the low cost assumptions, the cost rate would exceed the income rate temporarily (2023 through 2041); after 2041, the income rate would exceed the cost rate, reaching a positive balance of 0.51 percent of payroll by the end of the 75-year period.

Although, under the intermediate assumptions, the OASDI annual balances become negative after the first 19 years, the availability of interest earnings, in addition to tax revenues, results in projected trust fund growth (in dollars) that would continue for another 6 years. Because expenditures are estimated to increase at a faster rate than assets, however, OASDI assets would decline relative to annual disbursements, from about 2.4 times to about 1.9 times annual expenditures, during the same time period.

The actuarial balance of the OASDI program as a whole over the next 75 years is a deficit of 2.13 percent of taxable payroll, based on the intermediate assumptions. This deficit is significantly larger than the deficit shown in the 1993 Annual Report. The deficit represents about 14 percent of the estimated cost rate over the next 75 years, and is therefore larger than the maximum 5-percent level allowed

over that period by the test for close actuarial balance. Furthermore, beginning with the 1994-2027 period, and for all successively longer periods through the full 75-year period, the actuarial balances are deficits that are larger than the maximum levels allowed for close actuarial balance. Thus, the OASDI program is not in close actuarial balance.

Each trust fund, separately, is also out of close actuarial balance. On the basis of the intermediate assumptions, the OASI Trust Fund has an actuarial deficit of 1.46 percent of taxable payroll for the full 75-year valuation period, representing 11 percent of the OASI long-range cost rate. The DI Trust Fund's actuarial deficit of 0.66 percent of taxable payroll is much larger relative to the DI long-range cost rate—representing 32 percent of the cost rate.

When the 1993 Annual Report was released in early April of last year, the Board of Trustees sent a separate letter to the Congress recommending a specific reallocation of tax rates between the OASI and DI Trust Funds to remedy the immediate financial needs of the DI fund. Since no legislative action was taken to reallocate the tax rates, it is even more urgent now that such action be taken.

Based on the estimates in this annual report, the Board is again sending a separate letter to the Congress recommending another reallocation of the tax rates, revised to take account of a one-year delay in the effective date of the reallocation, from the beginning of 1993 to the beginning of 1994, and the higher costs of the DI program in this report. Because of the imminent depletion of the DI Trust Fund, the Board strongly urges enactment of the tax-rate reallocation as soon as possible this year.

In view of the lack of close actuarial balance in the OASDI program over the next 75 years, and the increase in the long-range deficit since the 1993 report, the Board believes that the long-range deficits of both the OASI and DI Trust Funds should be addressed. Accordingly, the Board recommends that the Advisory Council on Social Security conduct an extensive review of Social Security financing issues and develop recommendations for restoring the long-range actuarial balance of the OASDI program.

II. ACTUARIAL ANALYSIS

A. SOCIAL SECURITY AMENDMENTS SINCE THE 1993 REPORT

Since the 1993 Annual Report was transmitted to the Congress on April 6, 1993, there have been no legislative changes enacted that would have a significant effect on the financial status of the OASDI program. However, Public Law 103-66 (the Omnibus Budget Reconciliation Act of 1993), signed into law August 10, 1993, contained a provision that increases the maximum percentage of OASDI benefits subject to Federal income taxation. Specifically, this maximum percentage is raised from 50 percent to 85 percent for single persons with "combined incomes" over $34,000 and for married couples filing joint tax returns with combined incomes over $44,000. (Combined income is the sum of (i) adjusted gross income, (ii) tax-exempt interest, and (iii) one-half of OASDI benefits.) Single persons with combined incomes from $25,000 to $34,000 and married couples filing joint tax returns with combined incomes from $32,000 to $44,000 will continue to have no more than 50 percent of their benefits subject to income taxes. The new provision is effective for taxable years beginning after 1993. The additional tax revenues resulting from the increase to 85 percent are to be transferred to the Hospital Insurance Trust Fund.

B. DESCRIPTION OF THE TRUST FUNDS

The Federal Old-Age and Survivors Insurance Trust Fund was established on January 1, 1940, as a separate account in the United States Treasury. All the financial operations of the OASI program are handled through this fund. The Federal Disability Insurance Trust Fund is another separate account in the United States Treasury; it was established on August 1, 1956. All the financial operations of the DI program are handled through this fund.

The primary receipts of these two funds are amounts appropriated to each of them under permanent authority on the basis of contributions payable by workers, their employers, and individuals with self-employment income, in work covered by the OASDI program. All employees, and their employers, in covered employment are required to pay contributions with respect to their wages. Employees, and their employers, are also required to pay contributions with respect to cash tips, if the individual's monthly cash tips amount to at least $20. All self-employed persons are required to pay contributions with respect to their covered net earnings from self-employment. In addition to paying the required employer contributions on the wages of covered Federal employees, the Federal Government also pays amounts equivalent to the combined employer and employee contributions that would be paid on deemed wage credits attributable to military service performed after 1956 if such wage credits were covered wages.

In general, an individual's contributions, or taxes, are computed on wages or net earnings from self-employment, or both wages and net self-employment earnings combined, up to a specified maximum annual amount. The contributions are determined first on the wages and then on any net self-employment earnings, such that the total does not exceed the annual maximum amount. An employee who pays contributions on wages in excess of the annual maximum amount (because of employment with two or more employers) is eligible for a refund of the excess employee contributions.

The monthly benefit amount to which an individual (or his or her spouse and children) may become entitled under the OASDI program is based on the individual's taxable earnings during his or her lifetime. For almost all persons who first become eligible to receive

benefits in 1979 or later, the earnings used in the computation of benefits are indexed to reflect increases in average wage levels.

The contribution, or tax, rates applicable in each calendar year and the allocation of these rates between the OASI and DI Trust Funds are shown in table II.B1.

For 1995 and later, the rates shown in table II.B1 are those scheduled in present law. (The total contribution rates for the OASDI and Hospital Insurance (HI) programs combined, and for each program separately, are shown in appendix A, table III.A1.) The maximum amount of earnings on which OASDI contributions are payable in a year, which is also the maximum amount of earnings creditable in that year for benefit-computation purposes, is called the contribution and benefit base. The contribution and benefit base for each year through 1994 is also shown in table II.B1.

TABLE II.B1.—CONTRIBUTION AND BENEFIT BASE AND CONTRIBUTION RATES

Calendar years	Contribution and benefit base	Contribution rates (percent)					
		Employees and employers, each			Self-employed		
		OASDI	OASI	DI	OASDI	OASI	DI
1937-49	$3,000	1.000	1.000	—	—	—	—
1950	3,000	1.500	1.500	—	—	—	—
1951-53	3,600	1.500	1.500	—	2.2500	2.2500	—
1954	3,600	2.000	2.000	—	3.0000	3.0000	—
1955-56	4,200	2.000	2.000	—	3.0000	3.0000	—
1957-58	4,200	2.250	2.000	0.250	3.3750	3.0000	0.3750
1959	4,800	2.500	2.250	.250	3.7500	3.3750	.3750
1960-61	4,800	3.000	2.750	.250	4.5000	4.1250	.3750
1962	4,800	3.125	2.875	.250	4.7000	4.3250	.3750
1963-65	4,800	3.625	3.375	.250	5.4000	5.0250	.3750
1966	6,600	3.850	3.500	.350	5.8000	5.2750	.5250
1967	6,600	3.900	3.550	.350	5.9000	5.3750	.5250
1968	7,800	3.800	3.325	.475	5.8000	5.0875	.7125
1969	7,800	4.200	3.725	.475	6.3000	5.5875	.7125
1970	7,800	4.200	3.650	.550	6.3000	5.4750	.8250
1971	7,800	4.600	4.050	.550	6.9000	6.0750	.8250
1972	9,000	4.600	4.050	.550	6.9000	6.0750	.8250
1973	10,800	4.850	4.300	.550	7.0000	6.2050	.7950
1974	13,200	4.950	4.375	.575	7.0000	6.1850	.8150
1975	14,100	4.950	4.375	.575	7.0000	6.1850	.8150
1976	15,300	4.950	4.375	.575	7.0000	6.1850	.8150
1977	16,500	4.950	4.375	.575	7.0000	6.1850	.8150
1978	17,700	5.050	4.275	.775	7.1000	6.0100	1.0900
1979	22,900	5.080	4.330	.750	7.0500	6.0100	1.0400
1980	25,900	5.080	4.520	.560	7.0500	6.2725	.7775

TABLE II.B1.—CONTRIBUTION AND BENEFIT BASE AND CONTRIBUTION RATES (Cont.)

Calendar years	Contribution and benefit base	Contribution rates (percent)					
		Employees and employers, each			Self-employed		
		OASDI	OASI	DI	OASDI	OASI	DI
1981	$29,700	5.350	4.700	0.650	8.0000	7.0250	0.9750
1982	32,400	5.400	4.575	.825	8.0500	6.8125	1.2375
1983	35,700	5.400	4.775	.625	8.0500	7.1125	.9375
1984[1]	37,800	5.700	5.200	.500	11.4000	10.4000	1.0000
1985[1]	39,600	5.700	5.200	.500	11.4000	10.4000	1.0000
1986[1]	42,000	5.700	5.200	.500	11.4000	10.4000	1.0000
1987[1]	43,800	5.700	5.200	.500	11.4000	10.4000	1.0000
1988[1]	45,000	6.060	5.530	.530	12.1200	11.0600	1.0600
1989[1]	48,000	6.060	5.530	.530	12.1200	11.0600	1.0600
1990	51,300	6.200	5.600	.600	12.4000	11.2000	1.2000
1991	53,400	6.200	5.600	.600	12.4000	11.2000	1.2000
1992	55,500	6.200	5.600	.600	12.4000	11.2000	1.2000
1993	57,600	6.200	5.600	.600	12.4000	11.2000	1.2000
1994	60,600	6.200	5.600	.600	12.4000	11.2000	1.2000
1995-99	(2)	6.200	5.600	.600	12.4000	11.2000	1.2000
2000 and later	(2)	6.200	5.490	.710	12.4000	10.9800	1.4200

[1]In 1984 only, an immediate credit of 0.3 percent of taxable wages was allowed against the OASDI contributions paid by employees, which resulted in an effective contribution rate of 5.4 percent. The appropriations of contributions to the trust funds, however, were based on the combined employee-employer rate of 11.4 percent, as if the credit for employees did not apply. Similar credits of 2.7 percent, 2.3 percent, and 2.0 percent were allowed against the combined OASDI and Hospital Insurance (HI) contributions on net earnings from self-employment in 1984, 1985, and 1986-89, respectively. Beginning in 1990, self-employed persons are allowed a deduction, for purposes of computing their net earnings, equal to half of the combined OASDI and HI contributions that would be payable without regard to the contribution and benefit base. The OASDI contribution rate is then applied to net earnings after this deduction, but subject to the OASDI base.

[2]Subject to automatic adjustment based on increases in average wages.

All contributions are collected by the Internal Revenue Service and deposited in the general fund of the Treasury. The contributions are immediately and automatically appropriated to the trust funds on an estimated basis. The exact amount of contributions received is not known initially because the OASDI and HI contributions and individual income taxes are not separately identified in collection reports received by the Internal Revenue Service. Periodic adjustments are subsequently made to the extent that the estimates are found to differ from the amounts of contributions actually payable as determined from reported earnings. Adjustments are also made to account for any refunds to employees (with more than one employer) who paid contributions on wages in excess of the contribution and benefit base.

From May 1983 through November 1990, amounts representing the estimated total collections of OASDI contributions for each month were credited to the trust funds on the first day of the month. The

"Omnibus Budget Reconciliation Act of 1990" amended the law in effect since 1983 to provide that such advance transfers would be used only if the trust funds drop to such a low level that advance transfers are needed in order to pay benefits.

Beginning in 1984, up to one-half of an individual's or couple's OASDI benefits was subject to Federal income taxation under certain circumstances. Effective for taxable years beginning after 1993, the maximum percentage of benefits subject to taxation was increased from 50 percent to 85 percent. The proceeds from taxation of up to 50 percent of benefits are credited to the OASI and DI Trust Funds in advance, on an estimated basis, at the beginning of each calendar quarter, with no reimbursement to the general fund for interest costs attributable to the advance transfers. Subsequent adjustments are made based on the actual amounts as shown on annual income tax records. The amounts appropriated from the general fund of the Treasury are allocated to the OASI and DI Trust Funds on the basis of the income taxes paid on the benefits from each fund. (A special provision applies to benefits paid to non-resident aliens. A flat-rate tax, usually 15 percent, is withheld from the benefits before they are paid and, therefore, remains in the trust funds.) The additional tax revenues resulting from the increase to 85 percent are transferred to the HI Trust Fund.

Another source of income to the trust funds is interest received on investments held by the trust funds. That portion of each trust fund which, in the judgment of the Managing Trustee, is not required to meet current expenditures for benefits and administration is invested, on a daily basis, primarily in interest-bearing obligations of the U.S. Government (including special public-debt obligations described below). Investments may also be made in obligations guaranteed as to both principal and interest by the United States, including certain Federally sponsored agency obligations that are designated in the laws authorizing their issuance as lawful investments for fiduciary and trust funds under the control and authority of the United States or any officer of the United States. These obligations may be acquired on original issue at the issue price or by purchase of outstanding obligations at their market price. Thus, all of the investments held by the trust funds are backed by the full faith and credit of the U.S. Government.

The Social Security Act authorizes the issuance of special public-debt

obligations for purchase exclusively by the trust funds. The Act provides that these obligations shall bear interest at a rate equal to the average market yield (computed on the basis of market quotations as of the end of the calendar month next preceding the date of such issue) on all marketable interest-bearing obligations of the United States then forming a part of the public debt which are not due or callable until after the expiration of 4 years from the end of such calendar month. These special issues are redeemable at all times at par value and thus bear no risk with respect to changes in interest rates (i.e., principal price fluctuations).

Income is also affected by provisions of the Social Security Act for (1) transfers between the general fund of the Treasury and the OASI and DI Trust Funds for any adjustments to prior payments for the cost arising from the granting of noncontributory wage credits for military service prior to 1957, according to periodic determinations made by the Secretary of Health and Human Services; (2) annual reimbursements from the general fund of the Treasury to the OASI Trust Fund for any costs arising from the special monthly cash payments to certain uninsured persons—i.e., those who attained age 72 before 1968 and who generally are not eligible for cash benefits under other provisions of the OASDI program; and (3) the receipt of unconditional money gifts or bequests made for the benefit of the trust funds or any activity financed through the funds.

The primary expenditures of the OASI and DI Trust Funds are for (1) OASDI benefit payments, net of any reimbursements from the general fund of the Treasury for unnegotiated benefit checks, and (2) expenses incurred by the Department of Health and Human Services and by the Department of the Treasury in administering the OASDI program and the provisions of the Internal Revenue Code relating to the collection of contributions. Such administrative expenses include expenditures for construction, rental and lease, or purchase of office buildings and related facilities for the Social Security Administration. The Social Security Act does not permit expenditures from the OASI and DI Trust Funds for any purpose not related to the payment of benefits or administrative costs for the OASDI program.

The expenditures of the trust funds are also affected by (1) costs of vocational rehabilitation services furnished as an additional benefit to disabled persons receiving cash benefits because of their disabil-

ities where such services contributed to their successful rehabilitation, and (2) the provisions of the Railroad Retirement Act which provide for a system of coordination and financial interchange between the Railroad Retirement program and the Social Security program. Under the latter provisions, transfers between the Railroad Retirement program's Social Security Equivalent Benefit Account and the trust funds are made on an annual basis in order to place each trust fund in the same position in which it would have been if railroad employment had always been covered under Social Security.

The net worth of facilities and other fixed capital assets is not carried in the statements of the operations of the trust funds presented in this report. This is because the value of fixed capital assets does not represent funds available for the payment of benefits or administrative expenditures, and therefore is not considered in assessing the actuarial status of the trust funds.

C. SUMMARY OF THE OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS, FISCAL YEAR 1993

1. Old-Age and Survivors Insurance Trust Fund

A statement of the income and disbursements of the Federal Old-Age and Survivors Insurance Trust Fund in fiscal year 1993, and of the assets of the fund at the beginning and end of the fiscal year, is presented in table II.C1.

During fiscal year 1993, total receipts amounted to $319.3 billion, and total disbursements were $269.9 billion. The assets of the OASI Trust Fund thus increased by $49.4 billion during the year, to a total of $355.6 billion on September 30, 1993.

Included in total receipts during fiscal year 1993 were $287.7 billion in payroll tax contributions appropriated to the fund. Another $0.3 billion was received from the general fund of the Treasury representing payment for the taxes that would have been paid on estimated deemed wage credits for military service in 1993 if such credits had been considered to be covered wages. (Included in this payment are adjustments for revised estimates of deemed wage credits in prior years.) As an offset to gross contributions, $0.5 billion was transferred from the trust fund to the general fund of the Treasury for the estimated amount of refunds to employees who worked for more than one employer during a year and paid contributions on wages in excess of the contribution and benefit base.

Net payroll tax contributions thus amounted to $287.6 billion, an increase of 3.3 percent over the amount in the preceding fiscal year. This level of growth in contribution income resulted primarily from the effects of increased earnings and the increases in the contribution and benefit base that became effective on January 1 of each year 1992 and 1993. (Table II.B1 in the preceding section shows the tax rates and contribution and benefit bases in effect for these years.)

Income from the taxation of benefits amounted to $5.9 billion, of which nearly 99 percent represented amounts credited to the trust fund in advance, on an estimated basis, together with adjustments to 1990 transfers to account for actual experience. The remaining

1 percent of the total income from taxation of benefits represented amounts withheld from the benefits paid to non-resident aliens.

Special payments are made to uninsured persons who either attained age 72 before 1968, or who attained age 72 after 1967 and had 3 quarters of coverage for each year after 1966 and before the year of attainment of age 72. The costs associated with providing such payments to persons having fewer than 3 quarters of coverage are reimbursable from the general fund of the Treasury. Accordingly, a reimbursement of $14,142,000 was transferred to the OASI Trust Fund in fiscal year 1993, as required by section 228 of the Social Security Act. The reimbursement reflected the costs of payments made in fiscal year 1991.

The OASI Trust Fund was credited with interest totaling $25.8 billion which consisted of interest earned on the investments of the trust fund, plus interest on transfers between the trust fund and the general fund account for the Supplemental Security Income program due to adjustments in the allocation of administrative expenses.

The remaining $367,925 of receipts consisted of gifts received under the provisions authorizing the deposit of money gifts or bequests in the trust funds.

Of the $269.9 billion in total disbursements, $264.6 billion was for net benefit payments. The amount of net benefit payments in fiscal year 1993 represents an increase of 5.3 percent over the corresponding amount in fiscal year 1992. This increase was due primarily to (1) the automatic cost-of-living benefit increases of 3.7 percent and 3.0 percent which became effective for December 1991 and December 1992 respectively, under the automatic-adjustment provisions in section 215(i) of the Social Security Act, (2) an increase in the total number of beneficiaries, and (3) an increase in the average benefit amount resulting from the rising level of earnings.

TABLE II.C1.—STATEMENT OF OPERATIONS OF THE OASI TRUST FUND DURING FISCAL YEAR 1993

[In thousands]

Total assets, September 30, 1992		$306,279,759
Receipts:		
Contributions:		
Employment taxes	$287,728,615	
Payments from general fund of the Treasury representing employee-employer contributions on deemed wage credits for military service	306,567	
Gross contributions	288,035,182	
Less payment to the general fund of the Treasury for contributions subject to refund	466,340	
Net contributions		287,568,842
Income from taxation of benefit payments:		
Withheld from benefit payments to non-resident aliens	78,077	
All other, not subject to withholding	5,815,000	
Total income from taxation of benefits		5,893,077
Reimbursement from general fund of the Treasury for costs of payments to uninsured persons who attained age 72 before 1968		14,142
Investment income and interest adjustments:		
Interest on investments	25,821,521	
Interest on transfers to the general fund account for the Supplemental Security Income program due to adjustment in allocation of administrative expenses	266	
Total investment income and interest adjustments		25,821,787
Gifts		368
Total receipts		319,298,215
Disbursements:		
Benefit payments:		
Gross benefit payments	265,371,028	
Less collected overpayments	761,083	
Less reimbursement from general fund for unnegotiated checks	49,248	
Net benefit payments		264,560,697
Transfer to the Railroad Retirement "Social Security Equivalent Benefit Account"		3,352,533
Administrative expenses:		
Department of Health and Human Services	1,743,505	
Department of the Treasury	282,720	
Gross administrative expenses	2,026,225	
Less reimbursements from general fund of the Treasury for costs of furnishing information on deferred vested pension benefits	894	
Less receipts from sales of supplies, materials, etc.	4,505	
Net administrative expenses		2,020,826
Total disbursements		269,934,056
Net increase in assets		49,364,159
Total assets, September 30, 1993		355,643,918

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

As described in the preceding section, certain provisions of the Railroad Retirement Act coordinate the Railroad Retirement and OASDI programs and govern the financial interchanges arising from the allocation of costs between the two programs. Under those provisions, the Railroad Retirement Board and the Secretary of Health and

Human Services determined that a transfer of $3.4 billion to the Social Security Equivalent Benefit Account from the OASI Trust Fund was required in June 1993.

The remaining $2.0 billion of disbursements from the OASI Trust Fund represented net administrative expenses. The expenses of administering the OASDI and Medicare programs are allocated and charged directly to each of the various trust funds, through which those programs are financed, on the basis of provisional estimates. Similarly, the expenses of administering the Supplemental Security Income program are also allocated and charged directly to the general fund of the Treasury on a provisional basis. Periodically, as actual experience develops and is analyzed, adjustments to the allocations of administrative expenses for prior periods are effected by interfund transfers and transfers between the OASI Trust Fund and the general fund account for the Supplemental Security Income program, with appropriate interest adjustments.

Section 1131 of the Social Security Act authorizes annual reimbursements from the general fund of the Treasury to the OASI Trust Fund for additional administrative expenses incurred as a result of furnishing information on deferred vested benefits to pension plan participants, as required by the Employee Retirement Income Security Act of 1974 (Public Law 93-406). The reimbursement in fiscal year 1993 amounted to $894,102.

The assets of the OASI Trust Fund at the end of fiscal year 1993 totaled $355.6 billion, consisting of $355.5 billion in U.S. Government obligations and an undisbursed balance amounting to $0.1 billion. Table II.C2 shows the total assets of the fund and their distribution at the end of each fiscal year 1992 and 1993.

TABLE II.C2.—ASSETS OF THE OASI TRUST FUND, BY TYPE, INTEREST RATE, AND YEAR OF MATURITY, AT END OF FISCAL YEAR, 1992 AND 1993

	September 30, 1992	September 30, 1993
Obligations sold only to the trust funds (special issues):		
Certificates of indebtedness:		
5.625 percent, 1994	—	$19,111,890,000.00
5.875 percent, 1994	—	1,929,868,000.00
6.625 percent, 1993	$15,355,491,000.00	—
6.750 percent, 1993	$2,562,614,000.00	—
Bonds:		
6.250 percent, 1995-2006	—	37,811,700,000.00
6.250 percent, 2007	—	3,150,974,000.00
6.250 percent, 2008	—	23,350,034,000.00
7.375 percent, 1994	3,575,473,000.00	—
7.375 percent, 1995-2000	21,452,838,000.00	21,452,838,000.00
7.375 percent, 2001-06	21,452,844,000.00	21,452,844,000.00
7.375 percent, 2007	20,199,060,000.00	20,199,060,000.00
8.125 percent, 1994	3,611,348,000.00	—
8.125 percent, 1995-2000	21,668,094,000.00	21,668,094,000.00
8.125 percent, 2001-05	18,056,740,000.00	18,056,740,000.00
8.125 percent, 2006	16,623,586,000.00	16,623,586,000.00
8.375 percent, 1994	313,295,000.00	—
8.375 percent, 1995-2000	1,879,770,000.00	1,879,770,000.00
8.375 percent, 2001	2,370,396,000.00	2,370,396,000.00
8.625 percent, 1994	1,301,731,000.00	—
8.625 percent, 1995-2001	9,112,117,000.00	9,112,117,000.00
8.625 percent, 2002	3,672,127,000.00	3,672,127,000.00
8.75 percent, 1993	1,521,662,000.00	—
8.75 percent, 1994	7,099,803,000.00	3,270,042,000.00
8.75 percent, 1995-2000	42,598,812,000.00	42,598,812,000.00
8.75 percent, 2001-03	21,299,409,000.00	21,299,409,000.00
8.75 percent, 2004-05	26,024,476,000.00	26,024,476,000.00
9.25 percent, 1993	2,240,309,000.00	—
9.25 percent, 1994-2000	15,682,163,000.00	15,682,163,000.00
9.25 percent, 2001-02	4,480,616,000.00	4,480,616,000.00
9.25 percent, 2003	5,912,435,000.00	5,912,435,000.00
10.375 percent, 1993	565,186,000.00	—
10.375 percent, 1994-99	3,391,116,000.00	3,391,116,000.00
10.375 percent, 2000	2,057,101,000.00	2,057,101,000.00
10.750 percent, 1993	1,022,231,000.00	—
10.750 percent, 1994-96	3,066,693,000.00	3,066,693,000.00
10.750 percent, 1997-98	2,044,460,000.00	2,044,460,000.00
13.750 percent, 1993	469,684,000.00	—
13.750 percent, 1994-96	1,409,052,000.00	1,409,052,000.00
13.750 percent, 1997-98	939,370,000.00	939,370,000.00
13.750 percent, 1999	1,491,915,000.00	1,491,915,000.00
Total investments	306,524,017,000.00	355,509,698,000.00
Undisbursed balances[1]	−244,258,486.83	134,219,942.72
Total assets	306,279,758,513.17	355,643,917,942.72

[1] Negative figure represented extension of credit against securities to be redeemed within the following few days.

Note: Special issues are always purchased at par value. Therefore, book value and par value are the same for each special issue, and the common value is shown above. Where the maturity years are grouped, the amount maturing in each year is the amount shown divided by the number of years.

All securities held by the trust funds are backed by the full faith and credit of the United States Government. Those currently held by the OASI Trust Fund are special issues (i.e., securities sold only to the trust funds). These are of two types: short-term certificates of indebtedness and long-term bonds. The certificates of indebtedness are issued through the investment of receipts not required to meet cur-

rent expenditures, and they mature on the next June 30 following the date of issue. Special-issue bonds, on the other hand, are normally acquired only when special issues of either type mature on June 30. The amount of bonds acquired on June 30 is equal to the amount of special issues maturing, less amounts required to meet expenditures on that day.

The effective annual rate of interest earned by the assets of the OASI Trust Fund during calendar year 1993 was 8.3 percent, as compared to 8.7 percent earned during calendar year 1992. The interest rate on special issues purchased by the trust fund in June 1993 was 6.25 percent, payable semiannually. Special-issue bonds with a total par value of $67.5 billion were purchased in June 1993.

Section 201(d) of the Social Security Act provides that the public-debt obligations issued for purchase by the OASI and DI Trust Funds 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 each June 30, so that the amounts maturing in each of the next 15 years are approximately equal. Accordingly, the amounts and maturity dates of the special-issue bonds purchased on June 30, 1993, were selected in such a way that the maturity dates of the total portfolio of special issues were spread evenly over the 15-year period 1994-2008.

2. Disability Insurance Trust Fund

A statement of the income and disbursements of the Federal Disability Insurance Trust Fund during fiscal year 1993, and of the assets of the fund at the beginning and end of the fiscal year, is presented in table II.C3.

During fiscal year 1993, total receipts amounted to $32.1 billion, and total disbursements were $34.6 billion. The assets of the trust fund thus decreased by $2.6 billion during the year, to a total of $10.3 billion on September 30, 1993.

Included in total receipts were $30.8 billion representing payroll tax contributions appropriated to the fund and $32,963,000 in payments from the general fund of the Treasury representing taxes that would have been paid on estimated deemed wage credits for military service in 1993 if such credits had been considered to be covered wages. As an offset, $51,340,000 was transferred from the trust fund to the general fund of the Treasury for the estimated amount of refunds to employees who worked for more than one employer during a year and paid contributions on wages in excess of the contribution and benefit base.

Net contributions amounted to $30.8 billion, an increase of 3.2 percent from the amount in the preceding fiscal year. This increase is primarily attributable to the same factors, insofar as they apply to the DI program, that accounted for the change in contributions to the OASI Trust Fund. Income from the taxation of benefit payments amounted to $0.3 billion in fiscal year 1993.

Interest on investments totaled $1.0 billion. There were no interest adjustments for the fund in fiscal year 1993.

Of the $34.6 billion in total disbursements, $33.6 billion was for net benefit payments. This represents an increase of 10.6 percent over the corresponding amount of benefit payments in fiscal year 1992. This increase is due in part to the same factors that resulted in the net increase in benefit payments from the OASI Trust Fund. In the case of DI, however, the number of persons receiving disabled worker benefits continued to increase very rapidly in 1993 (and would have

grown even faster had there been no delay in processing new cases). Section II.F1. presents a more detailed discussion of this rapid growth.

TABLE II.C3.—STATEMENT OF OPERATIONS OF THE DI TRUST FUND DURING FISCAL YEAR 1993

[In thousands]

Total assets, September 30, 1992		$12,881,111
Receipts:		
Contributions:		
Employment taxes	$30,840,632	
Payments from general fund of the Treasury representing employee-employer contributions on deemed wage credits for military service	32,963	
Gross contributions	30,873,595	
Less payment to the general fund of the Treasury for contributions subject to refund	51,340	
Net contributions		30,822,255
Income from taxation of benefit payments:		
Withheld from benefit payments to non-resident aliens	3,903	
All other, not subject to withholding	264,000	
Total income from taxation of benefits		267,903
Investment income		966,069
Total receipts		32,056,227
Disbursements:		
Benefit payments:		
Gross benefit payments	33,725,799	
Less collected overpayments	131,586	
Less net reimbursement from general fund for unnegotiated checks	12,869	
Net benefit payments		33,581,343
Transfer to the Railroad Retirement "Social Security Equivalent Benefit Account"		82,833
Payment for costs of vocational rehabilitation services for disabled beneficiaries		33,486
Administrative expenses:		
Department of Health and Human Services	894,155	
Department of the Treasury	38,281	
Demonstration projects and experiments	4,095	
Gross administrative expenses	936,531	
Less receipts from sales of supplies, materials, etc.	1,973	
Net administrative expenses		934,558
Total disbursements		34,632,220
Net increase in assets		-2,575,994
Total assets, September 30, 1993		10,305,117

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

Provisions governing the financial interchanges between the Railroad Retirement and OASDI programs are described in the preceding section. Under those provisions, $82,833,000 was transferred to the Social Security Equivalent Benefit Account from the DI Trust Fund in June 1993.

The remaining disbursements amounted to $0.9 billion for net ad-

ministrative expenses (including $4,094,515 for demonstration projects and experiments to test the effect of alternative methods for assisting disabled beneficiaries' attempts to work), and $33,486,119 for the costs of vocational rehabilitation services furnished to disabled-worker beneficiaries and to those children of disabled workers who were receiving benefits on the basis of disabilities that began before age 22. Reimbursement from the trust funds for the costs of such services is made only in those cases where the services contributed to the successful rehabilitation of the beneficiaries.

The assets of the DI Trust Fund at the end of fiscal year 1993 totaled $10.3 billion, consisting of $10.2 billion in U.S. Government obligations and an undisbursed balance amounting to $68,649,891. Table II.C4 shows the total assets of the fund and their distribution at the end of each fiscal year 1992 and 1993.

The effective annual rate of interest earned by the assets of the DI Trust Fund during calendar year 1993 was 8.6 percent, as compared to 8.9 percent earned during calendar 1992. The interest rate on public-debt obligations issued for purchase by the trust fund in June 1993 was 6.25 percent, payable semiannually. Special-issue bonds with a total par value of $2.5 billion were purchased in June 1993. In compliance with the legal requirement to fix maturities with due regard for the needs of the funds, the usual practice of spreading the holdings of special issues, as described earlier, was not followed. Because the amount of bonds purchased was less than one month's benefit payments and the fund was expected to decline for the remainder of 1993, the bonds were purchased with a one-year maturity and were redeemed by early August 1993.[1]

The investment policies and practices described for the OASI Trust Fund apply as well to the investment of the assets of the DI Trust Fund.

[1] By law, the interest rate payable on new special-issue bonds is established using a formula that is independent of the maturity dates of the bonds. Thus, the purchase of one-year securities rather than a mix of one- to fifteen-year securities did not have any effect on the interest rates payable on these bonds. As noted, all carried a rate of 6.25 percent, the same rate payable on the longer-term securities purchased for the OASI Trust Fund.

TABLE II.C4.—ASSETS OF THE DI TRUST FUND, BY TYPE, INTEREST RATE, AND YEAR OF MATURITY, AT END OF FISCAL YEAR, 1992 AND 1993

	September 30, 1992	September 30, 1993
Investments in public-debt obligations:		
Public issues:		
Treasury bonds:		
3.5 percent 1998	$5,000,000.00	$5,000,000.00
4.125 percent, 1989-94	68,400,000.00	—
7.625 percent, 2002-07	10,000,000.00	10,000,000.00
8 percent, 1996-2001	26,000,000.00	26,000,000.00
8.25 percent, 2000-05	3,750,000.00	3,750,000.00
11.75 percent, 2005-10	30,250,000.00	30,250,000.00
Total investments in public issues at par value, as shown above	143,400,000.00	75,000,000.00
Unamortized premium or discount, net	−371,924.42	−332,669.47
Total investments in public issues at book value	143,028,075.58	74,667,330.53
Obligations sold only to the trust funds (special issues):		
Certificates of indebtedness:		
5.625 percent, 1994	—	1,597,501,000.00
6.625 percent, 1993	1,500,689,000.00	—
Bonds:		
7.375 percent, 1996-98	142,800,000.00	—
7.375 percent, 1999-2006	380,808,000.00	380,808,000.00
7.375 percent, 2007	916,460,000.00	916,460,000.00
8.125 percent, 1996-98	450,483,000.00	—
8.125 percent, 1999-2000	300,320,000.00	300,320,000.00
8.125 percent, 2001-05	750,805,000.00	750,805,000.00
8.125 percent, 2006	868,859,000.00	868,859,000.00
8.375 percent, 1996-98	605,301,000.00	—
8.375 percent, 1999-2000	403,534,000.00	403,534,000.00
8.375 percent, 2001	591,226,000.00	591,226,000.00
8.75 percent, 1996-98	382,419,000.00	—
8.75 percent, 1999-2000	254,946,000.00	254,946,000.00
8.75 percent, 2001	127,472,000.00	127,472,000.00
8.75 percent, 2002-05	2,874,792,000.00	2,874,792,000.00
9.75 percent, 1995	276,263,000.00	—
10.375 percent, 1996-97	203,008,000.00	—
10.375 percent, 1998	101,504,000.00	28,204,000.00
10.375 percent, 1999	152,904,000.00	152,904,000.00
10.375 percent, 2000	389,459,000.00	389,459,000.00
10.75 percent 1996-97	575,910,000.00	—
10.75 percent 1998	287,955,000.00	287,955,000.00
13.75 percent, 1999	236,555,000.00	236,555,000.00
Total obligations sold only to the trust funds (special issues)	12,774,472,000.00	10,161,800,000.00
Total investments in public-debt obligations (book value[1])	12,917,500,075.58	10,236,467,330.53
Undisbursed balances[2]	−36,389,147.24	68,649,891.20
Total assets (book value[1])	12,881,110,928.34	10,305,117,221.73

[1]Par value, plus unamortized premium or less discount outstanding.

[2] Negative figure represented extension of credit against securities to be redeemed within the following few days.

Note: Special issues are always purchased at par value. Therefore, book value and par value are the same for each special issue, and the common value is shown above. Where the maturity years are grouped for special issues, the amount maturing in each year is the amount shown divided by the number of years.

3. Old-Age and Survivors Insurance and Disability Insurance Trust Funds, Combined

A statement of the operations of the income and disbursements of the OASI and DI Trust Funds, on a combined basis, is presented in table II.C5. The entries in this table represent the sums of the corresponding values from tables II.C1 and II.C3. For a discussion of the nature of these income and expenditure transactions, reference should be made to the preceding two subsections covering OASI and DI separately.

TABLE II.C5.—STATEMENT OF OPERATIONS OF THE OASI AND DI TRUST FUNDS, COMBINED, DURING FISCAL YEAR 1993

[In thousands]

Total assets, September 30, 1992		$319,160,869
Receipts:		
Contributions:		
Employment taxes	$318,569,246	
Payments from general fund of the Treasury representing employee-employer contributions on deemed wage credits for military service	339,530	
Gross contributions	318,908,776	
Less payment to the general fund of the Treasury for contributions subject to refund	517,680	
Net contributions		318,391,096
Income from taxation of benefit payments:		
Withheld from benefit payments to non-resident aliens	81,980	
All other, not subject to withholding	6,079,000	
Total income from taxation of benefits		6,160,980
Reimbursement from general fund of the Treasury for costs of payments to uninsured persons who attained age 72 before 1968		14,142
Investment income and interest adjustments:		
Interest on investments	26,787,590	
Interest on transfers to the general fund account for the Supplemental Security Income program due to adjustment in allocation of administrative expenses	266	
Total investment income and interest adjustments		26,787,856
Gifts		368
Total receipts		351,354,442

TABLE II.C5.—STATEMENT OF OPERATIONS OF THE OASI AND DI TRUST FUNDS, COMBINED, DURING FISCAL YEAR 1993 (Cont'd)

[In thousands]

Disbursements:		
Benefit payments:		
Gross benefit payments	$299,096,827	
Less collected overpayments	892,669	
Less reimbursement from general fund for unnegotiated checks	62,117	
Net benefit payments		$298,142,040
Transfer to the Railroad Retirement "Social Security Equivalent Benefit Account"		3,435,366
Payment for costs of vocational rehabilitation services for disabled beneficiaries		33,486
Administrative expenses:		
Department of Health and Human Services	2,637,660	
Department of the Treasury	321,001	
Disability demonstration projects and experiments	4,095	
Gross administrative expenses	2,962,755	
Less reimbursements from general fund of the Treasury for costs of furnishing information on deferred vested pension benefits	894	
Less receipts from sales of supplies, materials, etc.	6,478	
Net administrative expenses		2,955,384
Total disbursements		304,566,276
Net increase in assets		46,788,166
Total assets, September 30, 1993		365,949,035

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

Table II.C6 compares past estimates of contributions and benefit payments for fiscal year 1993, as shown in the 1989-93 Annual Reports, with the corresponding actual amounts in 1993. The estimates shown are the ones based on the alternative II-B set of assumptions from the 1989-90 reports and the alternative II assumptions for the more recent reports.

A number of factors can contribute to differences between estimates and subsequent actual amounts, including actual values for key economic, demographic, and other variables that differ from assumed levels. In addition, amendments to the Social Security Act can cause actual taxes or benefits to vary from earlier estimates. The comparisons in table II.C6 indicate that actual OASI and DI tax contributions in fiscal year 1993 were significantly lower, generally, than prior estimates (due primarily to the recession that began late in 1990). Estimates of OASI benefit payments were generally close to actual payments in 1993. The actual amount of DI benefit payments in 1993, however, was significantly above prior estimates, due to faster-than-expected growth in the number of disabled workers.

TABLE II.C6.—COMPARISON OF ACTUAL AND ESTIMATED OPERATIONS OF THE OASI AND DI TRUST FUNDS, FISCAL YEAR 1993

[Amounts in millions]

	Net contributions[1]		Benefit payments[2]	
	Amount	Variance from actual (percent)	Amount	Variance from actual (percent)
OASI Trust Fund:				
Estimate in 1989 report	$320,191	11.3	$266,342	0.7
Estimate in 1990 report	317,002	10.2	266,473	.7
Estimate in 1991 report	305,733	6.3	268,443	1.5
Estimate in 1992 report	293,724	2.1	264,658	(3)
Estimate in 1993 report	287,566	(3)	264,843	.1
Actual amount	287,569	—	264,561	—
DI Trust Fund:				
Estimate in 1989 report	34,299	11.3	29,126	−13.4
Estimate in 1990 report	33,953	10.2	29,496	−12.3
Estimate in 1991 report	32,918	6.8	30,805	−8.4
Estimate in 1992 report	31,467	2.1	32,219	−4.2
Estimate in 1993 report	30,818	(3)	33,361	−.8
Actual amount	30,822	—	33,615	—
OASI and DI Trust Funds, combined:				
Estimate in 1989 report	354,490	11.3	295,469	−0.9
Estimate in 1990 report	350,955	10.2	295,968	−.7
Estimate in 1991 report	338,652	6.4	299,248	.4
Estimate in 1992 report	325,191	2.1	296,877	−.4
Estimate in 1993 report	318,384	(3)	298,204	(3)
Actual amount	318,391	—	298,176	—

[1]"Actual" contributions for 1993 reflect adjustments for prior fiscal years (see preceding section for description of these adjustments). "Estimated" contributions also include such adjustments, but on an estimated basis.

[2]Includes payments, if any, for vocational rehabilitation services furnished to disabled persons receiving benefits because of their disabilities.

[3]Between -0.05 percent and 0.05 percent.

At the end of fiscal year 1993, about 42.1 million persons were receiving monthly benefits under the OASDI program. Of these persons, about 36.9 million and 5.2 million were receiving monthly benefits from the OASI Trust Fund and the DI Trust Fund, respectively. The number of persons receiving benefits from the OASI and DI Trust Funds grew by 1.2 percent and 7.4 percent, respectively, during the fiscal year. The estimated distribution of benefit payments in fiscal years 1992 and 1993, by type of beneficiary, is shown in table II.C7 for each trust fund separately.

TABLE II.C7.—ESTIMATED DISTRIBUTION OF BENEFIT PAYMENTS FROM THE OASI AND DI TRUST FUNDS, BY TYPE OF BENEFICIARY OR PAYMENT, FISCAL YEARS 1992 AND 1993

[Amounts in millions]

	Fiscal year 1992		Fiscal year 1993	
	Amount	Percentage of total	Amount	Percentage of total
Total OASDI benefit payments	$281,618	100.0	$298,142	100.0
OASI benefit payments	251,268	89.2	264,561	88.7
DI benefit payments	30,350	10.8	33,581	11.3
OASI benefit payments, total	251,268	100.0	264,561	100.0
Monthly benefits:				
Retired workers and auxiliaries	193,854	77.2	203,920	77.1
Retired workers	176,782	70.4	186,146	70.4
Wives and husbands	15,602	6.2	16,228	6.1
Children	1,470	.6	1,545	.6
Survivors of deceased workers	57,199	22.8	60,425	22.8
Aged widows and widowers	45,669	18.2	48,279	18.2
Disabled widows and widowers	657	.3	788	.3
Parents	37	(1)	36	(1)
Children	9,320	3.7	9,785	3.7
Widowed mothers and fathers caring for child beneficiaries	1,515	.6	1,537	.6
Uninsured persons generally aged 72 before 1968	9	(1)	7	(1)
Lump-sum death payments	206	.1	210	.1
DI benefit payments, total	30,350	100.0	33,581	100.0
Disabled workers	27,186	89.6	30,022	89.4
Wives and husbands	569	1.9	569	1.7
Children	2,594	8.5	2,989	8.9

[1] Less than 0.05 percent.

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

Net administrative expenses charged to the OASI and DI Trust Funds in fiscal year 1993 totaled $3.0 billion. This amount represented 0.9 percent of contribution income and 1.0 percent of expenditures for benefit payments. Corresponding percentages for each trust fund separately and for the OASDI program as a whole are shown in table II.C8 for each of the last 5 years.

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TABLE II.C8.—NET ADMINISTRATIVE EXPENSES AS A PERCENTAGE OF CONTRIBUTION INCOME AND OF BENEFIT PAYMENTS, BY TRUST FUND, FISCAL YEARS 1989-93

Fiscal year	OASI Trust Fund		DI Trust Fund		OASI and DI Trust Funds, combined	
	Contribution income	Benefit payments	Contribution income	Benefit payments	Contribution income	Benefit payments
1989	0.7	0.8	3.2	3.3	0.9	1.1
1990	.6	.7	2.6	3.0	.8	.9
1991	.6	.7	2.7	2.9	.8	1.0
1992	.7	.7	2.8	2.8	.9	.9
1993	.7	.8	3.0	2.8	.9	1.0

Tables II.C2 and II.C4, presented in the two preceding subsections, showed the assets of the OASI and DI Trust Funds at the end of fiscal years 1992 and 1993. The changes in the invested assets of the funds between those two dates are a result of the acquisition and disposition of securities during fiscal year 1993. Table II.C9 presents these investment transactions for each trust fund separately and combined. All amounts shown in the table are at par value.

TABLE II.C9.—INVESTMENT TRANSACTIONS OF THE OASI AND DI TRUST FUNDS IN FISCAL YEAR 1993

[In thousands]

	OASI Trust Fund	DI Trust Fund	OASI and DI Trust Funds, combined
Invested assets, September 30, 1992	$306,524,017	$12,917,872	$319,441,889
Acquisitions:			
Special issues:			
Certificates of indebtedness	296,009,483	31,396,958	327,406,441
Bonds	67,463,683	2,548,087	70,011,770
Public issues:			
Treasury bonds	—	—	—
Total acquisitions	363,473,166	33,945,045	397,418,211
Dispositions:			
Special issues:			
Certificates of indebtedness	292,885,830	31,300,146	324,185,976
Bonds	21,601,655	5,257,571	26,859,226
Public issues:			
Treasury bonds	—	68,400	68,400
Total dispositions	314,487,485	36,626,117	351,113,602
Net increase in invested assets	48,985,681	-2,681,072	46,304,609
Invested assets, September 30, 1993	355,509,698	10,236,800	365,746,498

Note: All investments are shown at par value.

D. PRINCIPAL ECONOMIC AND DEMOGRAPHIC ASSUMPTIONS

The future income and outgo of the combined OASDI program depend on many economic and demographic factors, including gross domestic product, labor force, unemployment, average earnings, productivity, inflation, fertility, mortality, net immigration, marriage, divorce, retirement patterns, and disability incidence and termination. The income will depend on how these factors affect the size and composition of the working population and the level and distribution of earnings. Similarly, the outgo will depend on how these factors affect the size and composition of the beneficiary population and the general level of benefits.

Because precise prediction of these various factors is impossible, estimates are shown in this report on the basis of three sets of assumptions, designated as intermediate (alternative II), low cost (alternative I), and high cost (alternative III). The intermediate set, alternative II, represents the Board's best estimate of the future course of the population and the economy. In terms of the net effect on the status of the OASDI program, the low cost alternative I is the more optimistic, and the high cost alternative III is the more pessimistic of the plausible economic and demographic conditions.

Although these sets of economic and demographic assumptions have been developed using the best available information, the resulting estimates should be interpreted with care. In particular, the resulting estimates are not intended to be exact predictions of the future status of the OASDI program, but rather, they are intended to be indicators of the trend and range of future income and outgo, under a variety of plausible economic and demographic conditions.

1. Economic Assumptions

The principal economic assumptions for the three alternatives are summarized in table II.D1.

TABLE II.D1.—SELECTED ECONOMIC ASSUMPTIONS BY ALTERNATIVE, CALENDAR YEARS 1960-2070

Calendar year	Average annual percentage change in— Real GDP[1]	Average annual wage in covered employment	Consumer Price Index[2]	Real-wage differential[3] (percent)	Average annual interest rate[4] (percent)	Average annual unemployment rate[5] (percent)	Average annual percentage increase in labor force[6]
Historical data:							
1960-64	3.9	3.4	1.3	2.1	3.7	5.7	1.3
1965-69	4.4	5.4	3.4	2.0	5.2	3.8	2.1
1970-74	2.4	6.3	6.1	.2	6.7	5.4	2.3
1975	–.8	6.7	9.1	–2.4	7.4	8.5	1.9
1976	4.9	8.7	5.7	3.0	7.1	7.7	2.4
1977	4.5	7.3	6.5	.8	7.1	7.1	2.9
1978	4.8	9.7	7.7	2.0	8.2	6.1	3.2
1979	2.5	9.8	11.4	–1.6	9.1	5.8	2.6
1980	–.5	9.0	13.4	–4.4	11.0	7.1	1.9
1981	1.8	9.8	10.3	–.5	13.3	7.6	1.6
1982	–2.2	6.5	6.0	.5	12.8	9.7	1.4
1983	3.9	5.1	3.0	2.1	11.0	9.6	1.2
1984	6.2	7.3	3.5	3.8	12.4	7.5	1.8
1985	3.2	4.3	3.5	.8	10.8	7.2	1.7
1986	2.9	5.1	1.6	3.5	8.0	7.0	2.0
1987	3.1	4.7	3.6	1.1	8.4	6.2	1.7
1988	3.9	4.8	4.0	.8	8.8	5.5	1.4
1989	2.5	4.3	4.8	–.5	8.7	5.3	1.8
1990	1.2	[7] 4.8	5.2	–.4	8.6	5.5	.7
1991	–.7	[7] 3.8	4.0	–.2	8.0	6.7	.4
1992	2.6	[7] 5.2	2.9	2.3	7.1	7.4	1.2
1993	[7] 2.9	[7] 2.4	2.8	–.5	6.1	6.8	.7
Intermediate:							
1994	3.2	2.7	2.7	.0	5.9	6.3	1.2
1995	2.8	4.8	3.2	1.6	5.9	6.2	1.0
1996	2.6	4.3	3.3	1.0	5.9	6.0	1.0
1997	2.4	4.3	3.4	1.0	6.1	6.0	.9
1998	2.2	4.3	3.5	.9	6.1	6.0	.9
1999	2.2	4.6	3.7	.9	6.2	6.0	.9
2000	2.1	4.8	3.9	.9	6.3	6.0	.9
2001	2.0	4.8	4.0	.8	6.4	5.9	.9
2002	2.0	5.0	4.0	1.0	6.4	5.9	.8
2003	2.0	5.1	4.0	1.1	6.4	5.9	.7
2010	1.7	5.1	4.0	1.1	6.3	6.0	.6
2020	1.3	5.0	4.0	1.0	6.3	6.0	.1
2030	1.3	5.0	4.0	1.0	6.3	6.0	.2
2040	1.2	5.0	4.0	1.0	6.3	6.0	.1
2050	1.2	5.0	4.0	1.0	6.3	6.0	.0
2060	1.2	5.0	4.0	1.0	6.3	6.0	.1
2070	1.2	5.0	4.0	1.0	6.3	6.0	.0

TABLE II.D1.—SELECTED ECONOMIC ASSUMPTIONS BY ALTERNATIVE, CALENDAR YEARS 1960-2070 (Cont.)

Calendar year	Average annual percentage change in— Real GDP[1]	Average annual wage in covered employment	Consumer Price Index[2]	Real-wage differential[3] (percent)	Average annual interest rate[4] (percent)	Average annual unemployment rate[5] (percent)	Average annual percentage increase in labor force[6]
Low Cost:							
1994	4.1	2.9	2.4	0.5	5.9	6.1	1.3
1995	3.7	5.1	2.8	2.3	5.8	5.7	1.2
1996	3.5	4.8	3.0	1.8	5.8	5.5	1.2
1997	3.3	4.8	3.0	1.8	6.0	5.3	1.1
1998	3.1	4.7	3.0	1.7	6.1	5.1	1.1
1999	2.9	4.6	3.0	1.6	6.0	5.1	1.1
2000	2.7	4.6	3.0	1.6	6.0	5.0	1.1
2001	2.6	4.6	3.0	1.5	6.0	5.0	1.0
2002	2.5	4.6	3.0	1.7	6.0	5.0	.9
2003	2.4	4.7	3.0	1.7	6.0	5.0	.9
2010	2.3	4.7	3.0	1.7	6.0	5.0	.7
2020	1.9	4.5	3.0	1.5	6.0	5.0	.3
2030	2.1	4.5	3.0	1.5	6.0	5.0	.5
2040	2.1	4.5	3.0	1.5	6.0	5.0	.6
2050	2.1	4.5	3.0	1.5	6.0	5.0	.6
2060	2.2	4.5	3.0	1.5	6.0	5.0	.6
2070	2.1	4.5	3.0	1.5	6.0	5.0	.6
High Cost:							
1994	2.4	2.6	3.4	−.7	6.0	6.4	1.2
1995	−.5	4.2	4.0	.2	6.3	7.0	.7
1996	2.8	5.8	5.4	.4	7.0	6.8	.7
1997	1.3	6.2	6.4	−.2	7.8	6.6	.9
1998	−1.7	3.8	4.9	−1.1	8.0	7.7	.6
1999	3.0	5.7	5.0	.8	7.7	7.5	.6
2000	2.7	5.2	5.0	.2	7.0	7.0	.9
2001	1.8	5.1	5.0	.1	6.9	6.9	.9
2002	1.5	5.4	5.0	.4	6.7	6.9	.7
2003	1.5	5.6	5.0	.6	6.6	6.9	.6
2010	1.3	5.5	5.0	.5	6.5	7.0	.5
2020	.7	5.6	5.0	.6	6.5	7.0	−.1
2030	.6	5.5	5.0	.5	6.5	7.0	−.2
2040	.5	5.5	5.0	.5	6.5	7.0	−.2
2050	.3	5.5	5.0	.5	6.5	7.0	−.5
2060	.2	5.5	5.0	.5	6.5	7.0	−.6
2070	.2	5.5	5.0	.5	6.5	7.0	−.5

[1]The real GDP (gross domestic product) is the value of total output of goods and services, expressed in 1987 dollars.

[2]The Consumer Price Index is the annual average value for the calendar year of the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

[3]The real-wage differential is the difference between the percentage increases, before rounding, in (1) the average annual wage in covered employment, and (2) the average annual Consumer Price Index.

[4]The average annual interest rate is the average of the nominal interest rates, which, in practice, are compounded semiannually, for special public-debt obligations issuable to the trust funds in each of the 12 months of the year.

[5]Through 2003, the rates shown are unadjusted civilian unemployment rates. After 2003, the rates are total rates (including military personnel), adjusted by age and sex based on the estimated total labor force for July 1, 1992.

[6]Labor force is the total for the U.S. (including military personnel) and reflects the average of the monthly numbers of persons in the labor force for each year.

[7]Preliminary.

Alternatives I, II, and III present a range of generally consistent sets of economic assumptions which have been designed to encompass most of the possibilities that might be encountered. The intermediate set of assumptions (alternative II) represents the Trustees' consensus expectation of continued moderate to relatively strong economic growth through 1996 and a return to moderate growth thereafter. The low cost assumptions (alternative I) represent a more optimistic outlook, with an indefinite continuation of the more robust economic growth experienced since the fourth quarter of 1992. The high cost assumptions (alternative III) represent a relatively pessimistic forecast in which the economy experiences generally weak economic growth and business cycles with two recessions in the short-range period. Economic cycles are not included in assumptions beyond the first 5 to 10 years of the projection period because inclusion of such cycles has little effect on the long-range estimates of financial status.

The period of sustained real economic growth, which began in 1982, ended with the recession that started with the third quarter of 1990. After a total decline in real GDP of 1.6 percent through the first quarter of 1991, and a three-quarter period of slow, but positive, growth following the recession, the return to steady economic growth which began in 1992 is assumed to continue through the end of the decade, and beyond, for alternatives I and II. Real growth is assumed to be stronger for alternative I than for alternative II.

For alternative III, moderate growth and an increasing rate of price inflation are assumed through the third quarter of 1994. The first projected recession begins in the fourth quarter of 1994, lasts 3 quarters, and results in a total decline in real GDP of 1.4 percent. After 8 quarters of recovery, a second recession, with a total decline in real GDP of 3.0 percent, is assumed to begin in the third quarter of 1997, lasting 4 quarters. A two-and-one-half-year period of moderately strong economic recovery and stable rates of inflation is assumed through the year 2000. Thereafter, steady, but relatively slow, growth is assumed for alternative III. The total declines in real GDP for the two projected recessions are slightly less than those of recent recessions; however, the duration of recovery between these recessions is assumed to be much shorter than for recoveries experienced in the past 2 decades.

After the year 2003, the projected rates of growth in real GDP, for all three alternatives, are determined by the assumed rates of growth

in employment, average hours worked, and labor productivity.

Assumed values for the unemployment rates reflect the pattern of real GDP growth for each alternative. For alternatives I and II, the unemployment rate is assumed to move gradually toward ultimate average levels of 5.0 and 6.0 percent, respectively, after 1993. For alternative III, the unemployment rate is assumed to reach its ultimate average level of 7.0 percent after the recovery that is assumed to follow the second projected recession.

Unemployment rates through 2003 are in the most commonly cited form, the civilian rate, which describes the differences between aggregate civilian labor force and aggregate civilian employment. For years after 2003, however, total rates are presented. These include the military (which reduces the rate by about 0.1 percent relative to the civilian rate) and are age-sex adjusted to the 1992 labor force. Such total rates better represent the total population covered by the OASDI program and adjust for the changing age-sex distribution of the labor force, which can obscure the comparison of unemployment rates over different time periods.

Unemployment rates measured and published by the Bureau of Labor Statistics are expected to be somewhat higher than would otherwise be expected starting in 1994, as a result of a change in survey methodology that will reclassify some people from being out of the labor force to being in the labor force, but unemployed. This change is not reflected in either the historical or projected values in this report, as insufficient data based on the new methodology were available at the time of preparation of the report.

For the intermediate projection, each of the other economic parameters is selected reflecting what the Trustees believe to be the most likely future course of the economy at the time of preparation of this report, consistent with the assumed pattern of real GDP growth. The annual rate of change in the average wage in covered employment is assumed to rise, generally, from the estimated 2.4-percent increase for 1993, averaging about 4.5 percent for the period 1994 through 2003. Between 2003 and 2015, growth in the average covered wage is slightly higher than the assumed ultimate rate of 5.0 percent, reflecting the gradual movement toward complete inclusion of Fed-

eral civilian employees. After 2015, the average covered wage growth rate remains at the ultimate assumed rate of 5.0 percent.

The annual rate of increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) declined from 4.0 percent in 1991 to 2.8 percent in 1993. Thereafter, it is assumed to increase, generally, reaching the ultimate assumed rate of 4.0 percent by the year 2001. The CPI-W (hereinafter denoted as "CPI") is used to determine automatic cost-of-living benefit increases under the OASDI program.

The real-wage differential (i.e., the difference between the annual rates of change in the average wage in covered employment and in the CPI) is estimated to be -0.5 percent in 1993. After 1993, under the intermediate alternative, the real-wage differential is projected to rise, with levels between 0.8 and 1.6 percent for years 1995 through the year 2015, thereafter remaining at the ultimate assumed differential of 1.0 percent. This represents a reduction of 0.1 percent from the ultimate assumption used in last year's report. This reduction reflects the expectation that many of the factors that have contributed to slower growth over the past 30 years (0.8 percent per year, on average, from 1962 to 1992) than for the prior 10 years (2.6 percent per year, on average, from 1952 to 1962) are likely to continue for the foreseeable future.

Under the intermediate alternative, the average annual interest rate is assumed to change very little from 6.1 percent in 1993, reaching its ultimate value of 6.3 percent by 2004. The annual rate of growth in total labor force decreased from 1.2 percent in 1992 to 0.7 percent in 1993. After 1993 the labor force is projected to increase at about 1.0 percent per year, on the average, through 2000, and to increase more slowly thereafter, reflecting the projected slowing of growth in the working-age population as compared with the experience of the 1980s and early 1990s.

For alternatives I and III, respectively, values for each of the economic parameters are selected which, in general, result in a more optimistic and a more pessimistic future financial status of the program.

2. Demographic Assumptions

The principal demographic assumptions for the three alternatives are shown in table II.D2.

For the intermediate projection, the assumed ultimate total fertility rate of 1.9 children per woman is attained in 2018 after a gradual decline from the preliminary estimate for 1993 of 2.05 children per woman. The age-sex-adjusted death rate is assumed to decrease gradually during the entire projection period, with a total reduction of 35 percent from the 1993 level by 2068. Life expectancies at birth in 2070 are 77.9 years for men and 84.0 years for women, compared to 72.1 and 79.0 years, respectively, in 1993. Life expectancies at age 65 in 2070 are projected to be 18.5 years for men and 22.3 years for women, compared to 15.2 and 19.1 years, respectively, in 1993. The projected death rates reflect the effects of assumed cases of Acquired Immunodeficiency Syndrome (AIDS), using estimates prepared by the Centers for Disease Control and Prevention (CDC) as a starting point. Total net immigration is assumed to rise over the next several years reaching an ultimate level of 850,000 persons per year by the year 2000. The ultimate assumed level of net annual immigration is the combination of 650,000 net legal immigrants per year and 200,000 net other-than-legal immigrants per year.

For alternative I, the total fertility rate is assumed to rise to an ultimate level of 2.2 children per woman by 2018. The age-sex-adjusted death rate is assumed to decrease more slowly than for alternative II, with the total reduction from the 1993 level being 16 percent by 2068. Life expectancies at birth in 2070 are 75.2 years for men and 80.9 years for women, while at age 65 they are 16.2 and 19.7 years, respectively. Total net immigration is ultimately assumed to be 1,100,000 persons per year. The assumed level of net annual immigration is the combination of 750,000 net legal immigrants per year and 350,000 net other-than-legal immigrants per year.

For alternative III, the total fertility rate is assumed to decrease to an ultimate level of 1.6 by 2018. The age-sex-adjusted death rate is assumed to decrease more rapidly than for alternative II, with the total reduction from the 1993 level being 54 percent by 2068. Life expectancies at birth in 2070 are 81.8 years for men and 88.0 years for women, while at age 65 they are 21.6 and 25.5 years, respectively. Total net immigration is ultimately assumed to be 700,000 persons

per year, the combination of 600,000 net legal immigrants per year and 100,000 net other-than-legal immigrants per year.

TABLE II.D2.—SELECTED DEMOGRAPHIC ASSUMPTIONS BY ALTERNATIVE, CALENDAR YEARS 1940-2070

Calendar year	Total fertility rate[1]	Age-sex-adjusted death rate[2] (per 100,000)	Life expectancy[3]			
			At birth		At age 65	
			Male	Female	Male	Female
Historical data:						
1940	2.23	1,532.8	61.4	65.7	11.9	13.4
1945	2.42	1,366.4	62.9	68.4	12.6	14.4
1950	3.03	1,225.3	65.6	71.1	12.8	15.1
1955	3.50	1,134.2	66.7	72.8	13.1	15.6
1960	3.61	1,128.6	66.7	73.2	12.9	15.9
1965	2.88	1,103.6	66.8	73.8	12.9	16.3
1970	2.43	1,041.8	67.1	74.9	13.1	17.1
1975	1.77	934.0	68.7	76.6	13.7	18.0
1976	1.74	923.2	69.1	76.8	13.7	18.1
1977	1.79	898.0	69.4	77.2	13.9	18.3
1978	1.76	892.4	69.6	77.2	13.9	18.3
1979	1.82	864.2	70.0	77.7	14.2	18.6
1980	1.85	878.1	69.9	77.5	14.0	18.4
1981	1.83	853.8	70.4	77.8	14.2	18.6
1982	1.83	828.5	70.8	78.2	14.5	18.8
1983	1.81	836.1	70.9	78.1	14.3	18.6
1984	1.80	829.6	71.1	78.2	14.4	18.7
1985	1.84	831.8	71.1	78.2	14.4	18.6
1986	1.84	824.8	71.1	78.3	14.5	18.7
1987	1.87	816.1	71.3	78.4	14.6	18.7
1988	1.93	824.5	71.2	78.3	14.6	18.7
1989	2.01	804.1	71.5	78.6	14.8	18.9
1990	2.07	789.0	71.8	78.8	15.0	19.0
1991	2.07	791.6	71.8	78.8	15.0	19.0
1992[4]	2.05	757.7	72.4	79.2	15.5	19.3
1993[4]	2.05	774.9	72.1	79.0	15.2	19.1
Intermediate:						
1995	2.04	761.6	72.3	79.2	15.4	19.2
2000	2.01	731.0	73.0	79.7	15.6	19.4
2005	1.98	701.1	73.8	80.2	15.8	19.5
2010	1.95	678.4	74.3	80.5	16.0	19.7
2015	1.92	659.2	74.7	80.9	16.3	19.9
2020	1.90	641.0	75.0	81.2	16.5	20.2
2025	1.90	623.8	75.3	81.5	16.7	20.4
2030	1.90	607.3	75.6	81.8	16.9	20.6
2035	1.90	591.6	75.9	82.1	17.1	20.9
2040	1.90	576.7	76.2	82.3	17.3	21.1
2045	1.90	562.4	76.5	82.6	17.5	21.3
2050	1.90	548.8	76.8	82.9	17.7	21.5
2055	1.90	535.7	77.1	83.2	17.9	21.7
2060	1.90	523.3	77.4	83.5	18.1	21.9
2065	1.90	511.4	77.6	83.7	18.3	22.1
2070	1.90	500.0	77.9	84.0	18.5	22.3

TABLE II.D2.—SELECTED DEMOGRAPHIC ASSUMPTIONS BY ALTERNATIVE, CALENDAR YEARS 1940-2070 (Cont.)

Calendar year	Total fertility rate[1]	Age-sex-adjusted death rate[2] (per 100,000)	Life expectancy[3]			
			At birth		At age 65	
			Male	Female	Male	Female
Low Cost:						
1995	2.06	766.4	72.6	79.1	15.2	19.0
2000	2.10	758.4	72.9	79.1	15.2	18.9
2005	2.13	753.0	73.2	79.2	15.2	18.8
2010	2.16	745.1	73.4	79.3	15.3	18.8
2015	2.18	735.8	73.6	79.5	15.3	18.8
2020	2.20	726.6	73.7	79.6	15.4	18.9
2025	2.20	717.8	73.9	79.8	15.5	19.0
2030	2.20	709.2	74.1	79.9	15.6	19.1
2035	2.20	700.9	74.2	80.0	15.7	19.2
2040	2.20	692.8	74.4	80.2	15.7	19.3
2045	2.20	685.0	74.5	80.3	15.8	19.4
2050	2.20	677.4	74.6	80.4	15.9	19.4
2055	2.20	670.0	74.8	80.5	16.0	19.5
2060	2.20	662.9	74.9	80.7	16.0	19.6
2065	2.20	655.9	75.0	80.8	16.1	19.7
2070	2.20	649.1	75.2	80.9	16.2	19.7
High Cost:						
1995	2.01	751.6	72.3	79.5	15.5	19.4
2000	1.93	712.3	72.7	80.2	16.0	19.9
2005	1.83	663.3	73.9	81.0	16.4	20.3
2010	1.74	614.9	75.3	81.7	16.8	20.7
2015	1.65	579.9	76.1	82.3	17.2	21.1
2020	1.60	551.1	76.7	82.9	17.6	21.5
2025	1.60	525.3	77.2	83.4	18.0	21.9
2030	1.60	501.1	77.7	84.0	18.4	22.3
2035	1.60	478.3	78.2	84.5	18.8	22.8
2040	1.60	456.5	78.7	85.0	19.2	23.2
2045	1.60	436.0	79.2	85.5	19.6	23.6
2050	1.60	416.6	79.8	86.0	20.0	24.0
2055	1.60	398.2	80.3	86.5	20.4	24.4
2060	1.60	380.9	80.8	87.0	20.8	24.8
2065	1.60	364.5	81.3	87.5	21.2	25.2
2070	1.60	349.0	81.8	88.0	21.6	25.5

[1]The total fertility rate for any year is the average number of children who would be born to a woman in her lifetime if she were to experience the birth rates by age observed in, or assumed for, the selected year, and if she were to survive the entire child-bearing period. The ultimate total fertility rate is assumed to be reached in 2018.

[2]The age-sex-adjusted death rate is the crude rate that would occur in the enumerated total population as of April 1, 1980, if that population were to experience the death rates by age and sex observed in, or assumed for, the selected year.

[3]The life expectancy for any year is the average number of years of life remaining for a person if that person were to experience the death rates by age observed in, or assumed for, the selected year.

[4]Preliminary.

The values assumed after the early years for both the economic and the demographic factors are intended to represent the average experience and are not intended to be exact predictions of year-by-year values. Actual future values will likely exhibit fluctuations or cyclical patterns, as in the past.

In addition to the assumptions discussed above, many other factors

are necessary to prepare the estimates presented in this report. Section II.H includes a discussion of many of those factors.

The ultimate values presented in tables II.D1 and II.D2 reflect little change from the ultimate values used for the 1993 Annual Report. Different levels, as opposed to rates of change, in several factors reflect, primarily, different starting levels based on additional data collected since the last report. The ultimate real-wage differential is reduced by 0.1 percent for the intermediate alternative to 1.0 percent from the level of 1.1 percent used in last year's report, based on a reassessment of historical experience and expectations for the future. The effect on the financing of the OASDI program of this and other changes is discussed in section II.F.2.

E. AUTOMATIC ADJUSTMENTS

The Social Security Act specifies that certain program amounts affecting the determination of OASDI benefits are to be adjusted annually, in general, to reflect changes in the economy. The law prescribes specific formulas that, when applied to reported statistics, produce "automatic" revisions in these program amounts and hence in the benefit-computation procedures.

In this section, values are shown for the program amounts that are subject to automatic adjustment, from the time that such adjustments became effective through 2003. Projected values for future years are based on the economic assumptions described in the preceding section of this report. Appendix F, in addition to providing the most recent determinations of program amounts under the automatic adjustment provisions, also provides a more complete description of such amounts.

Under the automatic-adjustment provisions affecting cost-of-living increases, benefits generally are increased once a year. These provisions were originally enacted in 1972 and first became effective with the benefit increase effective for June 1975. The 1983 amendments changed the effective month to December for years after 1982. For persons becoming eligible for benefits in 1979 and later, the increases generally begin with the year in which the worker reaches age 62, or becomes disabled or dies, if earlier. An automatic cost-of-living benefit increase of 2.6 percent, effective for December 1993, was announced in October 1993, as described in Appendix F. The automatic cost-of-living benefit increase for any year is normally based on the change in the CPI from the third quarter of the previous year to the third quarter of the current year.[1]

Under section 215(b)(3) of the Social Security Act, the average amount of total wages for each year after 1950 is used to index the earnings of most workers first becoming eligible for benefits in 1979 or later. This procedure converts a worker's past earnings to approximately their equivalent values near the time of the worker's retirement or other eligibility, and these indexed values are used to calculate the worker's benefit. The average amount of total wages for each year,

[1] If the combined assets of the OASI and DI Trust Funds at the beginning of a year represent less than 20 percent of annual expenditures for that year, then the automatic benefit increase for December is limited to the lesser of the increases in wages or prices. This "stabilizer" provision has not affected any benefit increases since its enactment in 1983. Based on the projected operations of the trust funds shown in this report under the alternative sets of assumptions, the stabilizer provision is unlikely to affect any future OASDI benefit increases under present law.

generally referred to as the "average wage index," is also used to adjust most of the program amounts that are subject to the automatic-adjustment provisions. Table II.E1 shows the average wage index as determined for each year 1951 through 1992.

TABLE II.E1.—AVERAGE WAGE INDEX, CALENDAR YEARS 1951-92

Year	Amount	Year	Amount	Year	Amount
1951	$2,799.16	1966	$4,938.36	1981	$13,773.10
1952	2,973.32	1967	5,213.44	1982	14,531.34
1953	3,139.44	1968	5,571.76	1983	15,239.24
1954	3,155.64	1969	5,893.76	1984	16,135.07
1955	3,301.44	1970	6,186.24	1985	16,822.51
1956	3,532.36	1971	6,497.08	1986	17,321.82
1957	3,641.72	1972	7,133.80	1987	18,426.51
1958	3,673.80	1973	7,580.16	1988	19,334.04
1959	3,855.80	1974	8,030.76	1989	20,099.55
1960	4,007.12	1975	8,630.92	1990	21,027.98
1961	4,086.76	1976	9,226.48	1991	21,811.60
1962	4,291.40	1977	9,779.44	1992	22,935.42
1963	4,396.64	1978	10,556.03		
1964	4,576.32	1979	11,479.46		
1965	4,658.72	1980	12,513.46		

The law provides for an automatic increase in the OASDI program's contribution and benefit base, based on the increase in the average wage index, for the year following a year in which an automatic benefit increase became effective. As described in Appendix F, the contribution and benefit base for 1994 was determined to be $60,600.

Under the retirement earnings test, earnings below certain amounts are exempted from the withholding of benefits payable to beneficiaries under age 70. Different exempt amounts apply for beneficiaries under age 65 and for those aged 65 to 69. The automatic adjustment provisions require that such exempt amounts be increased in the year following a year in which an automatic cost-of-living benefit increase becomes effective. Increases in the exempt amounts are based on increases in the average wage index.

Table II.E2 shows historical automatic cost-of-living benefit increases for the years 1975-93 and assumed increases through 2003. The table also shows historical year-to-year percentage increases in the average wage index for 1975-92 and assumed increases through 2003. As noted above, the OASDI contribution and benefit base and the retirement test exempt amounts are adjusted on the basis of such wage increases. The historical and projected amounts for this base and the exempt amounts are also shown in table II.E2. The projections are

shown under the three alternative sets of economic assumptions described in the previous section.

TABLE II.E2.—COST-OF-LIVING BENEFIT INCREASES, AVERAGE WAGE INDEX INCREASES, OASDI CONTRIBUTION AND BENEFIT BASES, AND RETIREMENT EARNINGS TEST EXEMPT AMOUNTS, 1975-2003

Calendar year	OASDI benefit increases [1] (percent)	Increase in average wage index [2] (percent)	OASDI contribution and benefit base [3]	Retirement earnings test exempt amount	
				Under age 65	Ages 65 and over [4]
Historical data:					
1975	8.0	7.5	$14,100	$2,520	$2,520
1976	6.4	6.9	15,300	2,760	2,760
1977	5.9	6.0	16,500	3,000	3,000
1978	6.5	7.9	17,700	3,240	[5] 4,000
1979	9.9	8.7	[5] 22,900	3,480	[5] 4,500
1980	14.3	9.0	[5] 25,900	3,720	[5] 5,000
1981	11.2	10.1	[5] 29,700	4,080	[5] 5,500
1982	7.4	5.5	32,400	4,440	[5] 6,000
1983	3.5	4.9	35,700	4,920	6,600
1984	3.5	5.9	37,800	5,160	6,960
1985	3.1	4.3	39,600	5,400	7,320
1986	1.3	3.0	42,000	5,760	7,800
1987	4.2	6.4	43,800	6,000	8,160
1988	4.0	4.9	45,000	6,120	8,400
1989	4.7	4.0	48,000	6,480	8,880
1990	5.4	4.6	51,300	6,840	9,360
1991	3.7	3.7	53,400	7,080	9,720
1992	3.0	5.2	55,500	7,440	10,200
1993	2.6	[6] 2.4	57,600	7,680	10,560
Intermediate:					
1994	2.9	2.6	[7] 60,600	[7] 8,040	[7] 11,160
1995	3.2	4.6	62,100	8,280	11,400
1996	3.3	4.2	63,600	8,520	11,640
1997	3.3	4.2	66,600	8,880	12,120
1998	3.5	4.3	69,300	9,240	12,600
1999	3.7	4.5	72,300	9,600	13,080
2000	3.9	4.7	75,300	9,960	13,680
2001	4.0	4.7	78,600	10,440	14,280
2002	4.0	4.9	82,200	10,920	15,000
2003	4.0	5.0	86,100	11,400	15,720
Low Cost:					
1994	2.6	2.8	[7] 60,600	[7] 8,040	[7] 11,160
1995	2.8	4.9	62,400	8,280	11,520
1996	3.1	4.7	64,200	8,520	11,880
1997	3.0	4.6	67,500	9,000	12,480
1998	3.0	4.6	70,800	9,480	13,080
1999	3.0	4.6	74,100	9,960	13,680
2000	3.0	4.5	77,400	10,440	14,280
2001	3.0	4.5	81,000	10,920	14,880
2002	3.0	4.5	84,600	11,400	15,600
2003	3.0	4.6	88,500	11,880	16,320

TABLE II.E2.—COST-OF-LIVING BENEFIT INCREASES, AVERAGE WAGE INDEX INCREASES, OASDI CONTRIBUTION AND BENEFIT BASES, AND RETIREMENT EARNINGS TEST EXEMPT AMOUNTS, 1975-2003 (Cont.)

Calendar year	OASDI benefit increases [1] (percent)	Increase in average wage index [2] (percent)	OASDI contribution and benefit base [3]	Retirement earnings test exempt amount	
				Under age 65	Ages 65 and over [4]
High Cost:					
1994	3.8	2.6	[7] $60,600	[7] $8,040	[7] $11,160
1995	3.8	4.1	61,800	8,160	11,400
1996	5.7	5.6	63,300	8,400	11,640
1997	6.5	6.0	66,000	8,760	12,120
1998	4.7	3.8	69,600	9,240	12,840
1999	5.0	5.6	73,800	9,840	13,560
2000	5.0	5.1	76,500	10,200	14,040
2001	5.0	5.0	80,700	10,800	14,880
2002	5.0	5.3	84,900	11,400	15,600
2003	5.0	5.5	89,100	12,000	16,320

[1] Effective with benefits payable for June in each year 1975-82, and for December in each year after 1982.

[2] Increase in the average wage index from prior year to the year shown. See footnote 6 below and table III.B1 for projected dollar amounts of the average wage index.

[3] The bases for years after 1989 were increased slightly by changes to the indexing procedure, as required by Public Law 101-239. Prior to 1991, the Hospital Insurance (HI) contribution base was the same as the OASDI contribution and benefit base. Higher HI bases of $125,000, $130,200, and $135,000 applied for 1991-93, respectively. Public Law 103-66 repealed the HI contribution base.

[4] In 1955-82, the retirement earnings test did not apply at ages 72 and over; beginning in 1983, it does not apply at ages 70 and over.

[5] Amount specified by the Social Security Amendments of 1977.

[6] Based on an estimated average wage index of $23,475.93 for 1993.

[7] Actual amount, as determined and announced in October 1993.

Other wage-indexed amounts are shown in table II.E3. The table provides historical values from 1978, when the amount of earnings required for a quarter of coverage was first indexed, through 1994, and also shows projected amounts under the intermediate assumptions through the year 2003. These other wage-indexed program amounts are described in the following paragraphs.

As noted earlier, a worker who becomes eligible for benefits in 1979 or later generally receives a benefit based on his or her indexed earnings. The indexed earnings are used to calculate the worker's Average Indexed Monthly Earnings (AIME). The basic formula used to compute the Primary Insurance Amount (PIA) for workers who reach age 62, become disabled, or die in 1994 is:

90 percent of the first $422 of AIME, plus
32 percent of AIME in excess of $422
but not in excess of $2,545, plus
15 percent of AIME in excess of $2,545.

The amounts separating the individual's AIME into intervals—the "bend points"—are adjusted automatically by the changes in average wages as specified in section 215(a)(1)(B) of the Social Security Act.

A similar formula is used to compute the maximum total amount of monthly benefits payable on the basis of the earnings of a retired or deceased individual. This formula is a function of the individual's PIA, and is shown below for workers who first became eligible for benefits, or who died before becoming eligible, in 1994:

150 percent of the first $539 of PIA, plus
272 percent of the PIA in excess of $539 but not in excess of $779, plus
134 percent of the PIA in excess of $779 but not in excess of $1,016, plus
175 percent of the PIA in excess of $1,016.

These PIA-interval bend points are adjusted automatically in accordance with section 203(a)(2) of the Act.

An individual's insured status depends on the number of quarters of coverage he or she has earned while in covered employment. The 1977 amendments specified the amount of earnings required in 1978 to be credited with a quarter of coverage and provided for automatic adjustment of this amount for years thereafter.

The law provides for the determination of the OASDI contribution and benefit bases that would have been in effect in each year after 1978 under the automatic-adjustment provisions as in effect before the enactment of the 1977 amendments. This "old-law base" is used in determining special-minimum benefits for certain workers who have many years of low earnings in covered employment.[1] Beginning in 1986, the old-law base is also used in the calculation of OASDI benefits for certain workers who are eligible to receive pensions based on noncovered employment.[2] In addition, it is used for certain purposes under the Railroad Retirement program and the Employee Retirement Income Security Act of 1974.

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[1] For special minimum purposes, "low earnings" means earnings of at least 15 percent of the old-law base. Prior to 1991, the definition required earnings of at least 25 percent of the old-law base.

[2] The first percentage applied to a person's AIME to calculate his or her Primary Insurance Amount varies from 40 percent to 90 percent, depending on the individual's years of coverage. An individual earns a year of coverage when his or her earnings for the year are at least 25 percent of the old-law base.

TABLE II.E3.—SELECTED OASDI PROGRAM AMOUNTS DETERMINED UNDER THE AUTOMATIC-ADJUSTMENT PROVISIONS, CALENDAR YEARS 1978-94, AND PROJECTED FUTURE AMOUNTS, CALENDAR YEARS 1995-2003, ON THE BASIS OF THE INTERMEDIATE SET OF ASSUMPTIONS

Calendar year	AIME "bend points" in PIA formula		PIA "bend points" in maximum-family-benefit formula			Earnings required for a quarter of coverage[1]	"Old law" contribution and benefit base[2]
	First	Second	First	Second	Third		
Historical data:							
1978	(3)	(3)	(3)	(3)	(3)	[4] $250	(3)
1979	[4] $180	[4] $1,085	[4] $230	[4] $332	[4] $433	260	$18,900
1980	194	1,171	248	358	467	290	20,400
1981	211	1,274	270	390	508	310	22,200
1982	230	1,388	294	425	554	340	24,300
1983	254	1,528	324	468	610	370	26,700
1984	267	1,612	342	493	643	390	28,200
1985	280	1,691	358	517	675	410	29,700
1986	297	1,790	379	548	714	440	31,500
1987	310	1,866	396	571	745	460	32,700
1988	319	1,922	407	588	767	470	33,600
1989	339	2,044	433	626	816	500	35,700
1990	356	2,145	455	656	856	520	38,100
1991	370	2,230	473	682	890	540	39,600
1992	387	2,333	495	714	931	570	41,400
1993	401	2,420	513	740	966	590	42,900
1994	422	2,545	539	779	1,016	620	45,000
Estimates:							
1995	432	2,605	552	797	1,039	640	46,200
1996	443	2,673	567	818	1,067	650	47,400
1997	464	2,795	593	855	1,116	680	49,500
1998	483	2,912	617	891	1,162	710	51,600
1999	503	3,035	643	929	1,211	740	53,700
2000	525	3,164	671	968	1,263	770	56,100
2001	548	3,306	701	1,011	1,319	810	58,500
2002	574	3,460	733	1,059	1,381	840	61,200
2003	601	3,623	768	1,109	1,446	880	64,200

[1]See Appendix F for a description of quarter-of-coverage requirements prior to 1978.

[2]Contribution and benefit base that would have been determined automatically under the law in effect prior to enactment of the Social Security Amendments of 1977. The bases for years after 1989 were increased slightly by changes to the indexing procedure to determine the base, as required by Public Law 101-239.

[3]No provision in law for this amount in this year.

[4]Amount specified for first year by Social Security Amendments of 1977; amounts for subsequent years subject to automatic-adjustment provisions.

F. ACTUARIAL ESTIMATES

Section 201(c)(2) of the Social Security Act requires the Board of Trustees to report annually to the Congress on the operations and status of the OASI and DI Trust Funds during the preceding fiscal year and on the expected operations and status of those trust funds during the ensuing 5 fiscal years. Section 201(c) of the Act also requires that the annual report include "a statement of the actuarial status of the Trust Funds."

The required information for the fiscal year that ended September 30, 1993, is presented in section II.C of this report. Estimates of the operations and status of the trust funds during fiscal years 1994-2003 are presented in this section. In addition, similar estimates for calendar years 1994-2003 are presented. A description of the actuarial status of the trust funds over the next 75 years, including long-range estimates of program income and program costs over that period, is also included in this section. The methods used to estimate the short-range operations of the trust funds and the long-range actuarial status are described in section II.H.

A number of different measures are useful in evaluating the financial status of the trust funds over the next 75 years. In addition to actuarial balance, and summarized income and cost rates, which are described in detail below, these measures include (1) the levels of future annual income and outgo, both in terms of dollars and relative to annual taxable earnings or payroll, including the pattern and ultimate values of such levels; (2) the annual differences between income and outgo, i.e., the annual balances, in dollars and relative to taxable payroll; (3) the size of future fund accumulations, in dollars and relative to future annual expenditures; and (4) the year in which trust fund exhaustion is estimated to occur. Estimates of all these indicators are presented in this section or in the appendices of this report. However, more attention is focused on certain elements of these measures, as described below.

In the short range, the adequacy of the trust fund level is generally measured by the "trust fund ratio," which is defined to be the assets at the beginning of the year expressed as a percentage of the outgo during the year. (For the years 1984-90, the assets at the beginning of the year also included advance tax transfers for the month of January. Assets at the beginning of subsequent years include ad-

vance tax transfers only if such transfers are needed to enable the timely payment of benefits.) The trust fund ratio represents the proportion of a year's outgo which can be paid with the funds available at the beginning of the year. During periods when trust fund disbursements exceed income, as might happen during an economic recession, trust fund assets are used to meet the shortfall. In the event of recurring shortfalls for an extended period, the trust funds can allow sufficient time for the development, enactment, and implementation of legislation to restore financial stability to the program.

The test of financial adequacy over the short-range projection period (the next 10 years), is applicable to each of the OASI and DI Trust Funds, separately, as well as to the combined funds. The requirements of this test are as follows: If the estimated trust fund ratio for a fund 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. Alternatively, if the ratio is initially less than 100 percent, then it must be projected to reach a level of at least 100 percent by the beginning of the sixth year and to remain at or above 100 percent throughout the remainder of the 10-year period. In addition, the fund's estimated assets at the beginning of each month of the 10-year period must be sufficient to cover that month's disbursements. This test is applied on the basis of the intermediate (alternative II) estimates. Failure to meet this test by either trust fund is an indication that solvency of the program over the next 10 years is in question and that Congressional action is needed to improve the short-range financial adequacy of the program.

Basic to the discussion of the long-range actuarial status are the concepts of "income rate" and "cost rate," each of which is expressed as a percentage of taxable payroll. The annual income rate is the ratio of income from revenues (payroll tax contributions and income from the taxation of benefits) to the OASDI taxable payroll for the year. The OASDI taxable payroll consists of the total earnings which are subject to OASDI taxes, with some relatively small adjustments.[1] Because the taxable payroll reflects these adjustments, the annual income rate can be defined to be the sum of the OASDI combined employee-employer contribution rate (or the payroll-tax rate) scheduled in the law and the rate of income from taxation of benefits

[1] Adjustments are made to include, after 1982, deemed wage credits based on military service, and to reflect the lower effective tax rates (as compared to the combined employee-employer rate) which apply to multiple-employer "excess wages," and which did apply, before 1984, to net earnings from self-employment and, before 1988, to income from tips.

(which is, in turn, expressed as a percentage of taxable payroll). As such, it excludes reimbursements from the general fund of the Treasury for the costs associated with special monthly payments to certain uninsured persons who attained age 72 before 1968 and who have fewer than 3 quarters of coverage, transfers under the interfund borrowing provisions, and net investment income.

The annual cost rate is the ratio of the cost (or outgo, expenditures, or disbursements) of the program to the taxable payroll for the year. In this context, the outgo is defined to include benefit payments, special monthly payments to certain uninsured persons who have 3 or more quarters of coverage (and whose payments are therefore not reimbursable from the general fund of the Treasury), administrative expenses, net transfers from the trust funds to the Railroad Retirement program under the financial-interchange provisions, and payments for vocational rehabilitation services for disabled beneficiaries; it excludes special monthly payments to certain uninsured persons whose payments are reimbursable from the general fund of the Treasury (as described above), and transfers under the interfund borrowing provisions. For any year, the income rate minus the cost rate is referred to as the "balance" for the year. (In this context, the term "balance" does not represent the assets of the trust funds, which are sometimes referred to as the "balance" in the trust funds.)

The long-range actuarial status of the trust funds has generally been summarized by the calculation of the "actuarial balance." The actuarial balance for a specified valuation period is defined as the difference between the summarized income rate and the summarized cost rate over that period. The summarized income rate over a period of years is equal to the ratio of (a) the sum of the trust fund balance at the beginning of the period plus the present value of the total income (excluding interest earnings) during the period, to (b) the present value of the taxable payroll for the years in the period. The summarized cost rate is equal to the ratio of (a) the sum of the present value of the outgo during the period plus the present value of a targeted trust fund level at the end of the period equal to the following year's outgo to (b) the present value of the taxable payroll for the years in the period. A targeted ending trust fund level of 1 year's expenditures is considered to be an adequate reserve for unforeseen contingencies; thus, in addition to the total outgo during the projection period, the summarized cost rate includes the cost of

reaching and maintaining a target trust fund ratio of 100 percent through the end of the projection period.

The present-value calculations take account of the effect of interest on future income and outgo. In calculating the present value of future income, for example, the income in each year of the projection period is discounted to the beginning of the period using the interest rate assumed for calculating the interest earnings of the trust funds during the period. Thus, the calculations of the summarized income and cost rates are consistent with the estimates of trust fund operations over the projection period.

If the program is in exact actuarial balance for a particular period (that is, if the actuarial balance is zero), then the present value of estimated future income for all years in the period, plus the beginning trust fund balance, is exactly equal to the present value of estimated future expenditures for all years in the period, plus the present value of targeted trust fund assets at the end of the period in the amount of the next year's estimated outgo. A negative actuarial balance indicates that future estimated income and the beginning trust fund balance together are not sufficient to accumulate to the level of the targeted assets while also covering all estimated expenditures in the period. A positive actuarial balance indicates that in addition to covering all estimated expenditures in the period, the estimated ending trust fund assets are more than the targeted level.

The size of the actuarial balance represents a measure of the program's financial adequacy for the period in question. The actuarial balance can be interpreted as that amount which, if added to the combined employee-employer contribution rate scheduled under present law for each of the next 75 years, would bring the program into exact actuarial balance. Of course, there are any number of different ways to increase taxes or to reduce expenditures, as well as different combinations of such changes, that would have an equivalent effect on the actuarial balance. Any one of these different sets of changes would, therefore, bring the program into exact actuarial balance.

The long-range test of close actuarial balance applies to a set of valuation periods beginning with the first 10 years and continuing through the first 11 years, the first 12 years, etc., up to and including the full 75-year projection period. Under the long-range test, sum-

marized income rates and cost rates are calculated for each of the 66 valuation periods in the full 75-year long-range projection period, with the first of these periods consisting 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. For shorter periods, the allowable percentage begins with zero for the first 10 years and increases uniformly for longer periods, until it reaches the maximum percentage of 5 percent allowed for the 75-year period. 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.

When a negative actuarial balance in excess of the allowable percentage of the summarized cost rate is projected for one or more of the 66 separate valuation periods, the program fails the long-range test of close actuarial balance. Being out of close actuarial balance indicates that the program is expected to experience financial problems in the future and that ways of improving the financial status of the program should be considered. The sooner the actuarial balance is less than the minimum allowable balance, expressed as a percentage of the summarized cost rate, the more urgent is the need for corrective action. However, it is recognized that necessary changes in program financing or benefit provisions should not be put off until the last possible moment if future beneficiaries and workers are to be able to effectively plan for their retirement.

It was noted earlier in this section that in addition to the measures used in the tests of the overall financial condition of the program, other financial measures are also presented in this report. All of these measures are important factors in arriving at a full understanding of the financial position of the OASDI program.

1. Operations and Status of the Trust Funds During the Period October 1, 1993, to December 31, 2003

This subsection presents estimates of the operations and financial status of the OASI and DI Trust Funds for the period October 1, 1993, to December 31, 2003, based on the assumptions described in the preceding two sections. No changes are assumed to occur in the present statutory provisions and regulations under which the OASDI program operates.[1]

These estimates indicate that the assets of the OASI Trust Fund would continue to increase rapidly throughout the next 10 years under each of the three sets of assumptions shown. In contrast, the estimates indicate that the assets of the DI Trust Fund would be depleted in 1995 in the absence of corrective legislation. Under the intermediate assumptions, DI assets would become insufficient to permit the timely payment of benefits by the middle of 1995. Based on the high cost assumptions, exhaustion would occur early in 1995 while under the low cost assumptions it would occur late in the same year.

As will be shown later in this subsection, the OASI Trust Fund meets the requirements of the Trustees' test of short-range financial adequacy, but the DI Trust Fund fails to do so. The OASI and DI Trust Funds, if combined, would pass the test. The imminent depletion of the DI Trust Fund is a clear indication that the financial position of the DI program must be strengthened in the immediate future. Further delay in addressing this issue, which was called for by the Board of Trustees in 1992 and 1993, imposes severe risks to the continued operation of the Disability Insurance program.

[1] The estimates shown in this subsection reflect 12 months of benefit payments in each year of the short-range projection period. In practice, 13 benefit payments can be made in certain years, with the next year having only 11 payments. This situation can result from the statutory requirement that benefit checks be delivered early when the normal check delivery date is a Saturday, Sunday, or legal public holiday. For example, the benefit checks for December 1992 would normally have been delivered on January 3, 1993; however, because that day was a Sunday, and the two preceding days a Saturday and a holiday, the checks were actually delivered on December 31, 1992. The annual benefit figures are shown as if those benefit checks were delivered on the usual date.

a. OASI Trust Fund Operations

Estimates of the operations and status of the OASI Trust Fund during calendar years 1994-2003 are shown in table II.F1 based on each of the three alternative sets of assumptions. Actual operations for calendar year 1993 are also shown in the table.

The increases in estimated income shown in table II.F1 under each set of assumptions reflect increases in estimated taxable earnings and growth in interest earnings on the invested assets of the trust fund. For each alternative, employment and earnings are assumed to increase in every year through the year 2003 (with the exception that employment is estimated to decline temporarily during the economic recessions assumed under alternative III). The number of persons with taxable earnings would increase on the basis of alternatives I, II, and III from 135 million during calendar year 1993 to about 155 million, 150 million, and 146 million, respectively, in 2003. The total annual amount of taxable earnings is projected to increase from $2,657 billion in 1993 to $4,758 billion, $4,502 billion, and $4,511 billion, in 2003, on the basis of alternatives I, II, and III, respectively. (In 1993 dollars—taking account of assumed increases in the CPI from 1993 to 2003 under each alternative—the estimated amounts of taxable earnings in 2003 are $3,557 billion, $3,167 billion, and $2,783 billion, respectively.) These increases in taxable earnings are due primarily to (1) projected increases in employment levels and average earnings in covered employment, (2) increases in the contribution and benefit base in 1994-2003 under the automatic adjustment provisions, and (3) various provisions enacted in 1983-90, including extensions of coverage to additional categories of workers.

Growth in interest earnings represents a significant component of the overall increase in trust fund income during this period. Although interest rates payable on trust fund investments are not assumed to change substantially from current levels, the continuing rapid increase in OASI assets will result in a corresponding increase in interest income. By the year 2003, interest income to the OASI Trust Fund is projected to range from 12 to 15 percent of total trust fund income (depending on alternative), as compared to 8 percent in 1993.

TABLE II.F1.—ESTIMATED OPERATIONS OF THE OASI TRUST FUND BY ALTERNATIVE, CALENDAR YEARS 1993-2003

[Amounts in billions]

Calendar year	Income	Expenditures	Net increase in fund	Fund at end of year	Trust fund	
					Amount[1]	Ratio[2]
1993[3]	$323.3	$273.1	$50.2	$369.3	$319.1	117
Intermediate:						
1994	343.7	285.7	58.0	427.3	369.3	129
1995	366.6	299.4	67.2	494.5	427.3	143
1996	388.9	314.2	74.8	569.3	494.5	157
1997	411.7	329.7	82.0	651.2	569.3	173
1998	435.5	345.9	89.7	740.9	651.2	188
1999	461.8	363.5	98.3	839.2	740.9	204
2000	482.8	382.8	100.1	939.3	839.2	219
2001	512.7	403.9	108.9	1,048.1	939.3	233
2002	544.9	426.5	118.3	1,166.5	1,048.1	246
2003	579.8	450.5	129.3	1,295.8	1,166.5	259
Low Cost:						
1994	346.4	285.2	61.2	430.5	369.3	129
1995	372.7	297.9	74.8	505.3	430.5	145
1996	400.0	310.9	89.1	594.4	505.3	163
1997	427.8	325.2	102.6	697.1	594.4	183
1998	457.5	339.7	117.7	814.8	697.1	205
1999	489.0	354.9	134.0	948.8	814.8	230
2000	514.0	371.0	143.0	1,091.9	948.8	256
2001	548.1	387.9	160.2	1,252.1	1,091.9	281
2002	584.0	405.7	178.3	1,430.4	1,252.1	309
2003	622.8	424.5	198.3	1,628.7	1,430.4	337
High Cost:						
1994	342.4	286.1	56.3	425.6	369.3	129
1995	360.6	302.8	57.8	483.5	425.6	141
1996	382.6	320.0	62.7	546.1	483.5	151
1997	411.2	343.9	67.3	613.4	546.1	159
1998	429.8	372.0	57.8	671.2	613.4	165
1999	454.7	395.7	58.9	730.2	671.2	170
2000	478.1	421.9	56.2	786.3	730.2	173
2001	508.0	449.6	58.4	844.8	786.3	175
2002	538.3	479.0	59.3	904.1	844.8	176
2003	570.2	510.1	60.1	964.2	904.1	177

[1]Represents assets at beginning of year.

[2]Represents amounts shown in preceding column as a percentage of expenditures during the year. See text concerning interpretation of these ratios.

[3]Figures for 1993 represent actual experience.

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

Rising expenditures during 1994-2003 reflect automatic benefit increases as well as the upward trend in the numbers of beneficiaries and in the average monthly earnings underlying benefits payable by the program. The growth in the number of beneficiaries in the past and the expected growth in the future result both from the increase in the aged population and from the increase in the proportion of the population which is eligible for benefits. The latter increase is primarily due to various amendments enacted after 1950 which mod-

ified eligibility provisions and extended coverage to additional categories of employment.

Growth has also occurred, and will continue to occur, in the proportion of eligible persons who, in fact, receive benefits. This growth is due to several factors, among which are (1) the amendments enacted since 1950 which affect the conditions governing the receipt of benefits and (2) the increasing percentage of eligible persons who are aged 70 and over and who therefore may receive benefits regardless of earnings.

The estimates shown in table II.F1 indicate that income to the OASI Trust Fund would substantially exceed expenditures in every year of the short-range projection period, under each of the three sets of assumptions used in this report. The assets of the OASI Trust Fund at the beginning of 1993 were equal to 117 percent of the fund's expenditures in 1993. As described in the introduction to this section, this ratio is known as the "trust fund ratio;" it provides a useful measure of the relative level of trust fund assets. During 1993, income exceeded disbursements by $50.2 billion. As a result, the trust fund ratio increased to about 129 percent at the beginning of 1994.

Assets are estimated to increase substantially in each year of the short-range projection period, based on each of the three alternative sets of assumptions. The increase in the trust fund ratio from 129 percent at the beginning of 1994 to the range of 177-337 percent at the beginning of the year 2003 is due, in part, to the increases in the OASI tax rate that became effective in 1988 and 1990. Asset growth is also assisted by the increases in taxable earnings during 1982-88 and 1992 that exceeded the rate of growth in benefit payments and the expected continuation of this experience in 1995 and later (except for certain years under alternative III).

As noted in section II.B, the portion of the OASI Trust Fund that is not needed to meet day-to-day expenditures is used to purchase investments, generally in special public-debt obligations of the U.S. Government. The cash used to make these purchases becomes part of the general fund of the Treasury and is used to meet various Federal outlays. Interest is paid to the trust fund on these securities and, when the securities mature or are redeemed prior to maturity, general fund revenues are used to repay the principal to the trust fund. Thus, the investment operations of the trust fund result in

various cash flows between the trust fund and the general fund of the Treasury.

Currently, the excess of tax income to the OASI Trust Fund over the fund's expenditures results in a substantial net cash flow from the trust fund to the general fund. Sometime after the turn of the century, as shown in the following subsection, this cash flow will reverse; as trust fund securities are redeemed to meet benefit payments and other expenditures, revenue from the general fund of the Treasury will be drawn upon to provide the necessary cash. The accumulation and subsequent redemption of substantial trust fund assets has important public policy and economic implications that extend well beyond the operation of the OASDI program itself. Discussion of these broader issues is not within the scope of this report.

Based on the intermediate (alternative II) assumptions, the assets of the OASI Trust Fund would continue to exceed 100 percent of annual expenditures by a steadily increasing amount through the end of the year 2003. Consequently, the OASI Trust Fund satisfies the test of short-range financial adequacy by a wide margin. The estimates in table II.F1 also indicate that the short-range test would be satisfied even under the high cost assumptions.

In interpreting the trust fund ratios in table II.F1, it should be noted that at the beginning of any month there must be sufficient assets on hand to meet the benefit payments that are payable at the beginning of that month. The specific minimum amount of assets required for this purpose depends on a number of factors and varies somewhat from month to month. Assets of roughly 8 to 9 percent of annual expenditures are normally sufficient for this purpose. If the assets of either the OASI or DI Trust Fund at the end of a month fall below the minimum amount needed to meet the benefits payable at the beginning of the next month, section 201(a) of the Social Security Act provides for an advance transfer to the trust fund of all the taxes that are expected to be received by the fund in the next month. Thus, the difference between (1) the sum of the estimated trust fund ratios shown in table II.F1 and the advance tax transfers for January expressed as a percentage of total expenditures in the

year and (2) the minimum required level of about 8-9 percent, represents the reserve available to handle adverse contingencies.

b. DI Trust Fund Operations

The estimated operations and financial status of the DI Trust Fund during calendar years 1994-2003 under the three sets of assumptions are shown in table II.F2, together with figures on actual experience in 1993. Income is generally projected to increase steadily under each alternative, reflecting most of the same factors described previously in connection with the OASI Trust Fund. Because of the low level of DI assets, however, interest income is not currently a significant component in the growth in overall income to the DI Trust Fund.

Expenditures are estimated to increase because of automatic benefit increases and projected increases in the amounts of average monthly earnings on which benefits are based. In addition, on the basis of all three sets of assumptions, the number of DI beneficiaries is projected to continue increasing throughout the short-range projection period. The projected growth in the number of DI beneficiaries is attributable to several factors, including (1) gradual increases in the number of persons estimated to be insured for disability benefits and (2) an assumption that the number of insured workers who apply for and are awarded disability benefits will continue to substantially exceed the number of disabled worker beneficiaries whose benefits terminate each year as a result of death, recovery, or attainment of normal retirement age.

The proportion of insured workers who apply for and are awarded disability benefits in a given year is referred to as the "disability incidence rate." This rate has fluctuated substantially in past years and the causes for the variation have not been precisely determined. Incidence rates increased during 1970-75, declined during 1976-82, increased again during 1983-85, and remained steady in 1986-89. During 1990-92 the incidence rate resumed increasing, with unusually rapid increases (on a relative basis) of 8, 12, and 17 percent in those 3 years. In 1993, the observed incidence rate declined slightly. The backlog of pending disability applications awaiting final adjudication increased substantially, however, indicating that there was

a delay in awards from 1993 to later years, rather than a true decrease.

The rapid increases in disability benefit applications and awards during 1990-93 are thought to be attributable, in part, to the rise in unemployment associated with the 1990-91 economic recession (although the evidence is somewhat inconclusive). Other explanatory factors may include changes to the conditions governing receipt of disability benefits, as introduced through recent legislation, regulations, and court decisions, and increased awareness of the DI program by the public.

These and other factors were discussed at some length in a report entitled "The Social Security Disability Insurance Program: An Analysis" prepared by the Department of Health and Human Services at the request of the Board of Trustees. Reference should be made to this report (issued December 1992) for further details on the possible factors contributing to the rapid increase in disability incidence rates in recent years.

Due to the substantial variation exhibited by incidence rates in the past and the difficulty in determining reliable explanatory factors for this variation, any projection of future incidence rates necessarily will be uncertain. The 1993 disability incidence rate (calculated on an age-sex-adjusted basis) was 5.2 awards per 1,000 insured workers. This figure was about 20 percent higher than the average incidence rate of 4.4 per thousand that was experienced during 1975 through 1993. Under the intermediate assumptions, incidence rates are assumed to increase by another 9 percent over the next 2 years and then to decline gradually for the remainder of the short-range projection period, returning to the level experienced in 1993. Under the low cost alternative, incidence rates decline by about 16 percent during 1994-2003, reaching the 1975-93 average at the end of the period. The high cost alternative assumes that incidence rates increase by another 28 percent over the next 8 years (returning briefly to the highest levels experienced during the 1970s) and then decline slightly over the remaining 2 years of the short-range period.

The proportion of DI beneficiaries whose benefits terminate in a given year has also fluctuated significantly in the past. Over the last 20 years, the rates of benefit termination due to death or conversion to retirement benefits (at attainment of normal retirement age) have

declined very gradually. This trend is attributable, in part, to the lower average age of new beneficiaries. The termination rate due to recovery has been much more volatile. Currently, the proportion of disabled beneficiaries whose benefits cease because of their recovery from disability is very low in comparison to past levels.

In this report, termination rates due to attainment of normal retirement age are estimated to continue their downward trend through about 2000. This rate would decrease again in 2003 as a result of the increase in the normal retirement age in that year. Age-specific death rates for disabled beneficiaries are assumed to remain at about their current level; the aggregate termination rate due to death, however, would continue to decline as a result of estimated continuing declines in the average age of beneficiaries. Terminations due to recovery are assumed to increase somewhat from their current unusually low level. The overall termination rate (reflecting all causes) is projected under all three alternatives to continue declining gradually during 1992-99, before leveling off at the end of the short-range projection period. The overall rate would also decline in 2003 as a result of the increase in the normal retirement age.

TABLE II.F2.—ESTIMATED OPERATIONS OF THE DI TRUST FUND BY ALTERNATIVE, CALENDAR YEARS 1993-2003

[Amounts in billions]

Calendar year	Income	Expenditures	Net increase in fund	Fund at end of year	Trust fund	
					Amount[1]	Ratio[2]
1993[3]	$32.3	$35.7	-$3.4	$9.0	$12.3	35
Intermediate:						
1994	33.7	39.1	-5.4	3.6	9.0	23
1995[4]	35.4	43.0	-7.6	-4.0	3.6	8
1996[4]	36.8	46.9	-10.1	-14.1	(5)	(5)
1997[4]	38.1	50.9	-12.8	-27.0	(5)	(5)
1998[4]	39.3	55.4	-16.1	-43.1	(5)	(5)
1999[4]	40.4	60.1	-19.7	-62.8	(5)	(5)
2000[4]	49.6	65.0	-15.3	-78.1	(5)	(5)
2001[4]	52.2	70.4	-18.2	-96.3	(5)	(5)
2002[4]	54.2	76.1	-21.9	-118.2	(5)	(5)
2003[4]	56.2	82.4	-26.2	-144.5	(5)	(5)
Low Cost:						
1994	34.1	38.4	-4.4	4.6	9.0	23
1995[4]	36.2	41.3	-5.1	-.5	4.6	11
1996[4]	38.2	44.2	-6.0	-6.5	(5)	(5)
1997[4]	40.2	47.2	-7.0	-13.5	(5)	(5)
1998[4]	42.3	50.5	-8.2	-21.7	(5)	(5)
1999[4]	44.4	53.9	-9.5	-31.2	(5)	(5)
2000[4]	55.1	57.2	-2.2	-33.4	(5)	(5)
2001[4]	58.8	60.8	-2.1	-35.5	(5)	(5)
2002[4]	62.0	64.8	-2.8	-38.3	(5)	(5)
2003[4]	65.4	69.2	-3.8	-42.0	(5)	(5)
High Cost:						
1994	33.6	39.9	-6.3	2.7	9.0	22
1995[4]	34.6	44.9	-10.4	-7.7	2.7	6
1996[4]	35.7	50.2	-14.5	-22.2	(5)	(5)
1997[4]	36.9	56.7	-19.8	-42.0	(5)	(5)
1998[4]	36.4	64.6	-28.1	-70.2	(5)	(5)
1999[4]	36.1	71.9	-35.8	-106.0	(5)	(5)
2000[4]	44.4	79.9	-35.5	-141.4	(5)	(5)
2001[4]	45.8	88.4	-42.6	-184.0	(5)	(5)
2002[4]	46.1	97.2	-51.1	-235.1	(5)	(5)
2003[4]	46.3	106.5	-60.3	-295.3	(5)	(5)

[1]Represents assets at beginning of year.

[2]Represents amounts shown in preceding column as a percentage of expenditures during the year. See text concerning interpretation of these ratios.

[3]Figures for 1993 represent actual experience.

[4]Under all three alternatives, the DI Trust Fund would be depleted in 1995, when assets would become insufficient to pay benefits on time. Thus, figures shown under each alternative for 1995 and later are theoretical. See text for details.

[5]Fund depleted.

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

The continuing spread of Acquired Immunodeficiency Syndrome (AIDS) has contributed to the recent increases in DI awards.[1] Due to the extremely high mortality rates of affected individuals, the total number of disabled workers currently receiving benefits has not increased greatly as a result of AIDS. Although many aspects of AIDS are well understood, there remains considerable uncertainty regard-

[1] Although the number of disability benefit awards is higher as a result of AIDS, this effect has been fully reflected in the projections shown in past annual reports. Thus, the greater number of awards due to AIDS does not account for the unexpectedly large increases in awards experienced since 1990.

ing future medical advances and future incidence of HIV infection. To reflect this uncertainty, the projected numbers of benefit awards to AIDS patients (and their projected longevity) are varied by alternative. Under the intermediate assumptions, benefit awards to persons with AIDS are projected to continue to increase through 1999 before beginning to decline. Under the low cost assumptions, the number of new awards begins to decline in the near future, while the number projected under the high cost assumptions increases at a rapid rate throughout the short-range period.

At the beginning of calendar year 1993, the assets of the DI Trust Fund represented 35 percent of annual expenditures. During 1993, DI expenditures exceeded DI income by $3.4 billion, with the result that the trust fund ratio for the beginning of 1994 decreased to about 23 percent. Under the intermediate assumptions, income is estimated to fall short of expenditures in each year of the short-range projection period, thereby requiring further redemption of Treasury securities held by the trust fund to cover the shortfalls. By the beginning of 1995, DI assets would represent 8 percent of annual expenditures—barely enough to meet the benefit payments due in the first month without triggering an advance tax transfer under section 201(a) of the Social Security Act. Following several more months of decline, the low level of assets would trigger advance tax transfers. The availability of each month's tax income in advance, at the beginning of the month, would postpone the depletion of the trust fund for about 4 additional months. By about mid-1995, however, assets (including advance tax transfers) would become insufficient to meet benefit payments when due without corrective legislation.

Theoretical operations of the DI Trust Fund are shown in table II.F2, beyond the point of asset depletion, as an indication of the magnitude of the deficits that will have to be corrected. For purposes of illustration, these theoretical operations are calculated on an assumption that the trust fund would be able to *borrow* funds on the same terms that it normally *lends* surplus cash amounts (in other words, a mirror image of normal operations). This assumption permits projected operations for two or more trust funds to be added together, with the resulting totals properly indicative of how the trust funds would operate if tax rates were reallocated or if the funds were merged. It is important to note, however, that there is no provision

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in the Social Security Act that authorizes borrowing on behalf of a deficient trust fund.

Under the low cost and high cost assumptions, as under the intermediate assumptions, expenditures from the DI Trust Fund would exceed income in each year of the short-range projection period. The assets of the DI Trust Fund would continue to decline steadily under either alternative and would be exhausted in 1995—early in the year under the high cost assumptions or late in the year under the low cost alternative.

Because DI assets fail to reach the level of 1 year's expenditures under the intermediate assumptions and would be insufficient to meet benefit payments when due in 1995 and later, the DI Trust Fund does not satisfy the Trustees' short-range test of financial adequacy. In view of the imminent depletion of the DI Trust Fund, it is imperative that the financial position of the DI program be strengthened in the very near future. As noted previously, the Board of Trustees has recommended to the Congress that tax rates be reallocated between the OASI and DI Trust Funds. As will be seen in the next subsection, such action would correct the short-range financing insufficiency for the DI Trust Fund without jeopardizing the short-range financial status of the OASI Trust Fund.

c. Combined OASI and DI Trust Fund Operations

The estimated operations and status of the OASI and DI Trust Funds, combined, during calendar years 1994-2003 on the basis of the three alternatives, are shown in table II.F3, together with figures on actual experience in 1993. These amounts are the sums of the corresponding figures shown in tables II.F1 and II.F2.

in the Social Security Act that authorizes borrowing on behalf of a deficient trust fund.

Under the low cost and high cost assumptions, as under the intermediate assumptions, expenditures from the DI Trust Fund would exceed income in each year of the short-range projection period. The assets of the DI Trust Fund would continue to decline steadily under either alternative and would be exhausted in 1995—early in the year under the high cost assumptions or late in the year under the low cost alternative.

Because DI assets fail to reach the level of 1 year's expenditures under the intermediate assumptions and would be insufficient to meet benefit payments when due in 1995 and later, the DI Trust Fund does not satisfy the Trustees' short-range test of financial adequacy. In view of the imminent depletion of the DI Trust Fund, it is imperative that the financial position of the DI program be strengthened in the very near future. As noted previously, the Board of Trustees has recommended to the Congress that tax rates be reallocated between the OASI and DI Trust Funds. As will be seen in the next subsection, such action would correct the short-range financing insufficiency for the DI Trust Fund without jeopardizing the short-range financial status of the OASI Trust Fund.

c. Combined OASI and DI Trust Fund Operations

The estimated operations and status of the OASI and DI Trust Funds, combined, during calendar years 1994-2003 on the basis of the three alternatives, are shown in table II.F3, together with figures on actual experience in 1993. These amounts are the sums of the corresponding figures shown in tables II.F1 and II.F2.

TABLE II.F3.—ESTIMATED OPERATIONS OF THE OASI AND DI TRUST FUNDS, COMBINED, BY ALTERNATIVE, CALENDAR YEARS 1993-2003

[Amounts in billions]

Calendar year	Income	Expenditures	Net increase in funds	Funds at end of year	Trust fund	
					Amount[1]	Ratio[2]
1993[3]	$355.6	$308.8	$46.8	$378.3	$331.5	107
Intermediate:						
1994	377.4	324.8	52.6	430.9	378.3	116
1995[4]	402.1	342.5	59.6	490.5	430.9	126
1996[4]	425.7	361.1	64.6	555.1	[5]490.5	[5]136
1997[4]	449.7	380.6	69.1	624.2	[5]555.1	[5]146
1998[4]	474.8	401.2	73.5	697.8	[5]624.2	[5]156
1999[4]	502.2	423.6	78.6	776.4	[5]697.8	[5]165
2000[4]	532.5	447.8	84.7	861.1	[5]776.4	[5]173
2001[4]	564.9	474.2	90.7	951.8	[5]861.1	[5]182
2002[4]	599.1	502.6	96.4	1,048.2	[5]951.8	[5]189
2003[4]	636.0	532.9	103.1	1,151.3	[5]1,048.2	[5]197
Low Cost:						
1994	380.5	323.7	56.8	435.1	378.3	117
1995[4]	408.9	339.2	69.7	504.8	435.1	128
1996[4]	438.2	355.1	83.1	587.9	[5]504.8	[5]142
1997[4]	468.0	372.4	95.6	683.6	[5]587.9	[5]158
1998[4]	499.7	390.2	109.5	793.1	[5]683.6	[5]175
1999[4]	533.3	408.8	124.5	917.6	[5]793.1	[5]194
2000[4]	569.1	428.2	140.9	1,058.5	[5]917.6	[5]214
2001[4]	606.9	448.7	158.1	1,216.6	[5]1,058.5	[5]236
2002[4]	646.0	470.5	175.6	1,392.2	[5]1,216.6	[5]259
2003[4]	688.2	493.7	194.5	1,586.7	[5]1,392.2	[5]282
High Cost:						
1994	376.0	326.0	50.0	428.3	378.3	116
1995[4]	395.2	347.7	47.5	475.8	428.3	123
1996[4]	418.4	370.2	48.1	523.9	[5]475.8	[5]129
1997[4]	448.1	400.6	47.5	571.4	[5]523.9	[5]131
1998[4]	466.3	436.6	29.7	601.0	[5]571.4	[5]131
1999[4]	490.8	467.6	23.2	624.2	[5]601.0	[5]129
2000[4]	522.5	501.8	20.7	644.9	[5]624.2	[5]124
2001[4]	553.8	538.0	15.9	660.8	[5]644.9	[5]120
2002[4]	584.4	576.2	8.3	669.0	[5]660.8	[5]115
2003[4]	616.5	616.7	-.2	668.8	[5]669.0	[5]108

[1]Represents assets at beginning of year.

[2]Represents amounts shown in preceding column as a percentage of expenditures during the year. See text concerning interpretation of these ratios.

[3]Figures for 1993 represent actual experience.

[4]Under all three alternatives, the DI Trust Fund would be depleted in 1995, when assets would become insufficient to pay benefits on time. Thus, figures shown for the combined trust funds under each alternative for 1995 and later are theoretical. See text for details.

[5]Trust fund amounts and ratios for 1996 and later do not reflect the advance tax transfers to the DI Trust Fund that would be made under present law.

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

At the beginning of 1993, the trust fund ratio for the OASI and DI Trust Funds combined was 107 percent, as shown in table II.F3. During 1993, total income to the two trust funds was $46.8 billion higher than total expenditures, reflecting an OASI surplus of $50.2 billion and the DI deficit of $3.4 billion. As a result of this net increase, combined OASDI assets at the beginning of 1994 represented

about 116 percent of estimated combined expenditures for the year. Based on the intermediate assumptions, the trust fund ratio for the combined funds is projected to increase substantially, nearly doubling by 2003. The ratio would grow at an even faster rate under the low cost assumptions, reaching 282 percent at the beginning of the year 2003. Under the high cost assumptions, assets would grow more slowly, reach a maximum of 131 percent in 1997 and 1998, and decline to 108 percent at the beginning of 2003.

Under the intermediate assumptions, the total assets of the OASI and DI Trust Funds would remain above 100 percent of annual OASDI expenditures throughout the short-range projection period. Therefore, the combined trust funds meet the requirements of the short-range test of financial adequacy. Under the high cost assumptions, the fund ratio for OASI and DI combined would still remain above 100 percent through 2003 (although, as indicated in the section on long-range projections, the ratio would fall below this level shortly thereafter). Thus, even under adverse conditions the combined funds would satisfy the short-range test of financial adequacy, although only by a narrow margin.

The projections in table II.F3 indicate that the short-range financial status of the OASI and DI Trust Funds, on a combined basis, is satisfactory. Thus, the imminent depletion of the DI Trust Fund could be avoided through a reallocation of tax rates between OASI and DI without jeopardizing the short-range financial status of the OASI Trust Fund. Such a reallocation would, of course, worsen the long-range financial outlook for OASI. Because the OASI program is substantially larger than DI, however, the negative impact on OASI would be small whereas the improvement for DI would be considerable.

Section 215(i) of the Social Security Act includes a provision to stabilize automatic benefit increases in the event of high inflation at a time when the combined assets of the OASI and DI Trust Funds are at very low levels (see section II.E of this report). Under all three alternatives, the level of OASDI assets during 1994-2003 would substantially exceed the applicable threshold. Thus, the stabilizer provision would not be triggered during the short-range projection period under any of the sets of assumptions used in this report.

Figure II.F1 presents the estimated total assets of the OASI and DI Trust Funds at the end of each year 1994-2003, based on the three sets of assumptions (together with actual assets at the end of each year 1984-93). Figure II.F2 illustrates the pattern of actual past and estimated future OASDI trust fund ratios under the three alternatives. Trust fund ratios for selected years prior to 1994, and estimates for 1994-2003 under the three alternatives, are shown in table II.F4 for OASI, DI, and both funds combined. In evaluating the ratios shown in figure II.F2 and table II.F4, it should be recalled that a minimum of roughly 8 to 9 percent is generally needed to meet monthly cash-flow requirements. The shaded area in figure II.F2 depicts this requirement.

FIGURE II.F1.—ESTIMATED ASSETS AT END OF YEAR, FOR OASI AND DI TRUST FUNDS COMBINED, CALENDAR YEARS 1984-2003

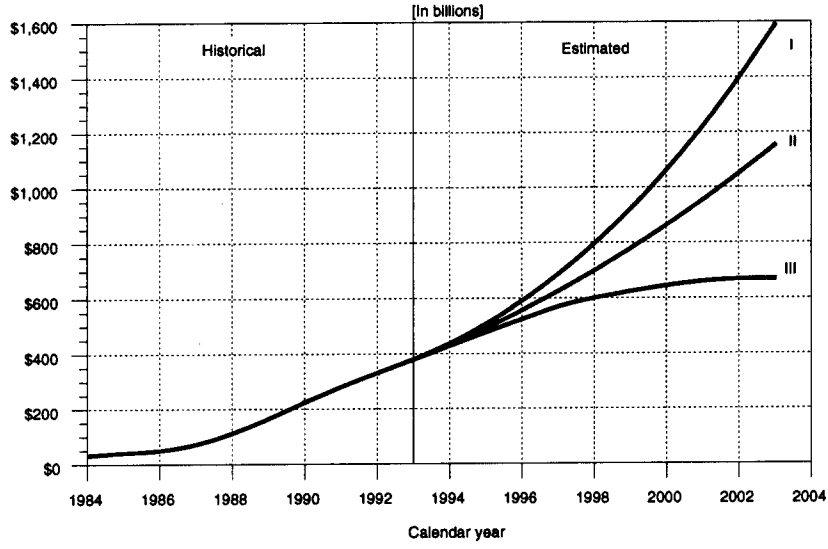


FIGURE II.F2.—ESTIMATED TRUST FUND RATIOS, FOR OASI AND DI TRUST FUNDS COMBINED, CALENDAR YEARS 1984-2003

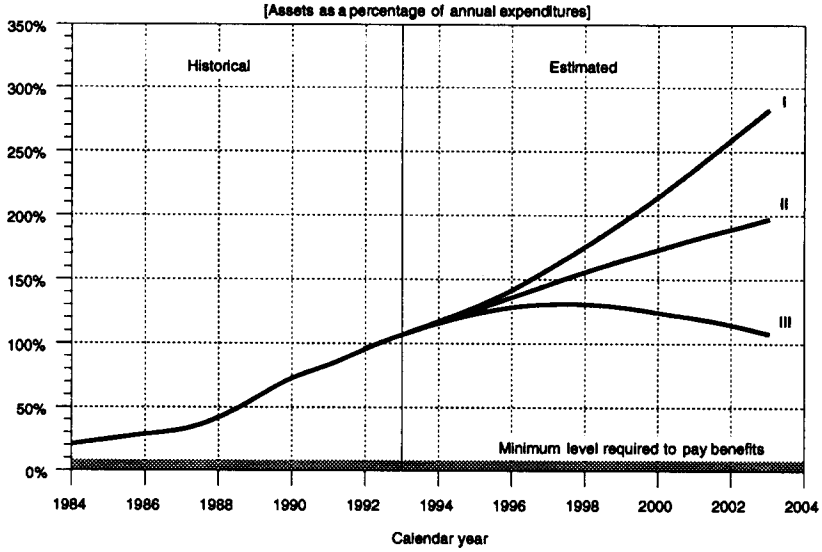


TABLE II.F4.—TRUST FUND RATIOS[1] BY TRUST FUND, SELECTED CALENDAR YEARS 1950-93, AND ESTIMATED FUTURE RATIOS BY ALTERNATIVE, CALENDAR YEARS 1994-2003

[In percent]

Calendar year	OASI Trust Fund	DI Trust Fund	OASI and DI Trust Funds, combined
Historical data:			
1950	1,156	—	1,156
1955	405	—	405
1960	180	304	186
1965	109	121	110
1970	101	126	103
1975	63	92	66
1980	23	35	25
1985	24	27	24
1986	28	38	29
1987	30	44	31
1988	41	38	41
1989	59	38	57
1990	78	40	75
1991	87	39	82
1992	103	40	96
1993	117	35	107
Intermediate:			
1994	129	23	116
1995[2]	143	8	126
1996[2]	157	(3)	[4]136
1997[2]	173	(3)	[4]146
1998[2]	188	(3)	[4]156
1999[2]	204	(3)	[4]165
2000[2]	219	(3)	[4]173
2001[2]	233	(3)	[4]182
2002[2]	246	(3)	[4]189
2003[2]	259	(3)	[4]197

TABLE II.F4.—TRUST FUND RATIOS[1] BY TRUST FUND, SELECTED CALENDAR YEARS 1950-93, AND ESTIMATED FUTURE RATIOS BY ALTERNATIVE, CALENDAR YEARS 1994-2003 (Cont.)

[In percent]

Calendar year	OASI Trust Fund	DI Trust Fund	OASI and DI Trust Funds, combined
Low Cost:			
1994	129	23	117
1995[2]	145	11	128
1996[2]	163	(3)	[4]142
1997[2]	183	(3)	[4]158
1998[2]	205	(3)	[4]175
1999[2]	230	(3)	[4]194
2000[2]	256	(3)	[4]214
2001[2]	281	(3)	[4]236
2002[2]	309	(3)	[4]259
2003[2]	337	(3)	[4]282
High Cost:			
1994	129	22	116
1995[2]	141	6	123
1996[2]	151	(3)	[4]129
1997[2]	159	(3)	[4]131
1998[2]	165	(3)	[4]131
1999[2]	170	(3)	[4]129
2000[2]	173	(3)	[4]124
2001[2]	175	(3)	[4]120
2002[2]	176	(3)	[4]115
2003[2]	177	(3)	[4]108

[1]Except where noted, represents assets at beginning of year as a percentage of expenditures during the year. For 1984-90, assets at beginning of year for each trust fund and the combined funds include the respective OASI and DI advance tax transfers for January.

[2]Figures for OASI and DI combined are theoretical because of the projected depletion of the DI Trust Fund.

[3]Fund depleted.

[4]Assets at beginning of year exclude advance tax transfers to the DI Trust Fund that would be made under present law.

The estimated trust fund ratios for OASI, as shown in this report under alternative II, are slightly lower than the corresponding estimates in the 1993 Annual Report. The projected operations under alternative I are somewhat less favorable than those shown in the 1993 report, since actual conditions in 1993 were less favorable than assumed under the low cost assumptions used in that report. Correspondingly, the current estimates based on alternative III are somewhat more favorable than those shown in the 1993 report.

The factors underlying the changes in the intermediate estimates for the OASI Trust Fund, from last year's annual report to this year's, are analyzed in table II.F5. In the 1993 Annual Report, the trust fund ratio for OASI was estimated to reach 254 percent at the beginning of the year 2002—the tenth projection year from that report. The corresponding ratio shown in this report for the tenth projection year (2003) is 259 percent. As indicated in table II.F5, if there had been no changes to the projections, then the estimated ratio at the

beginning of 2003 would have been 15 percentage points higher than at the beginning of 2002. There were changes, however, to reflect the latest actual data as well as adjustments to the assumptions for future years. The changes in the demographic factors had a minor negative effect, resulting in an aggregate reduction by the beginning of the year 2003 of 1 percentage point in the OASI trust fund ratio. The net effect of actual economic conditions in 1993, and adjustments to the assumptions for 1994 and later (primarily slower real wage growth), was to reduce the trust fund ratio by 9 additional percentage points. Together, these factors explain the overall change in the ratio for the tenth projection year.

Corresponding estimates of the factors underlying the changes in the financial projections for the DI Trust Fund, and for the OASI and DI Trust Funds combined, are also shown in table II.F5. As was the case for OASI, the most significant factor affecting the new estimates for the DI Trust Fund was the change in the economic assumptions.

TABLE II.F5.—CHANGE IN OASI AND DI TRUST FUND RATIOS AT THE BEGINNING OF THE TENTH YEAR OF PROJECTION, BASED ON THE INTERMEDIATE ASSUMPTIONS, BY REASON FOR CHANGE

[In percent]

Item	OASI Trust Fund	DI Trust Fund	OASI and DI Trust Funds, combined
Trust fund ratio shown in last year's report for calendar year 2002 [1]	254	[2] –115	[2] 199
Change in trust fund ratio due to changes in:			
Valuation period	15	–13	9
Demographic assumptions	–1	–2	–1
Economic assumptions	–9	–10	–10
Disability assumptions	([3])	–3	([3])
Total change in trust fund ratio	5	–28	–2
Trust fund ratio shown in this report for calendar year 2003 [1]	259	[2] –143	[2] 197

[1] Figures for DI, and for OASI and DI combined, are theoretical because of the depletion of the DI Trust Fund.

[2] Does not reflect advance tax transfers to the DI Trust Fund.

[3] Between –0.5 and 0.5 percent.

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

For the DI Trust Fund during 1994-2003, the estimated operations in this report under alternatives II and III are very similar to the corresponding estimates from the 1993 report; the estimated operations under alternative I show a significant worsening. The number of new disability awards to insured workers in 1993 was less

than anticipated in last year's report, but (as noted earlier) the backlog of pending disability claims increased substantially. The assumed disability incidence rates for the 1994 Annual Report are initially higher than the corresponding rates from the 1993 report, to reflect awards that were delayed from 1993; in later years, this difference diminishes.

The overall disability termination rate experienced in 1993 was slightly lower than assumed under the intermediate assumptions of the 1993 Annual Report (9.8 percent versus 9.9 percent). The termination rate assumptions for this report were not changed regarding terminations due to attainment of normal retirement age, as compared to the 1993 Annual Report. The assumptions were revised, based on improved data for the actual experience in 1991-93, to reflect a small increase in the termination rates due to death and a significant decrease in termination rates due to recovery, compared to the 1993 report. (As noted previously, however, recovery termination rates are still assumed to increase relative to the levels experienced in recent years.) Overall, the estimated aggregate termination rates (based on all causes) are slightly lower than the corresponding rates from the prior report.

Table II.F6 shows that total expenditures in calendar year 1993 from the OASI and DI Trust Funds increased to 11.64 percent of taxable payroll for the year—0.98 percentage point less than the income rate of 12.61 percent. This increase in the total cost rate for OASDI is primarily attributable to the continuing cost increases experienced by the DI program, as described previously. Under the intermediate assumptions, the OASDI cost rate would increase very gradually during the short-range projection period, to 11.86 percent in 2003. Based on the low cost assumptions, the cost rate is estimated to decline steadily, reaching 10.40 percent in 2003. The high cost alternative indicates a significant increase, to 13.70 percent in 2003.

These cost rate projections are shown in table II.F6 for both trust funds, separately and combined. Table II.F6 also shows a comparison of the cost rates with the corresponding income rates. As explained previously, the income rate represents the sum of the combined employee-employer payroll tax rate and the income derived from the Federal income taxation of OASDI benefits, expressed as a percentage of taxable payroll. The difference between the income rate and the cost rate for a year is referred to as the "balance" for that year.

TABLE II.F6.—COMPARISON OF INCOME RATES AND COST RATES, BY TRUST FUND, SELECTED CALENDAR YEARS 1950-93, AND ESTIMATED RATES BY ALTERNATIVE, CALENDAR YEARS 1994-2003

[As a percentage of taxable payroll]

Calendar year	OASI Trust Fund			DI Trust Fund			OASI and DI, combined		
	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance
Historical data:									
1950...	3.00	1.17	1.83	—	—	—	3.00	1.17	1.83
1955...	4.00	3.34	.66	—	—	—	4.00	3.34	.66
1960...	5.50	5.59	−.09	0.50	0.30	0.20	6.00	5.89	.11
1965...	6.75	7.23	−.48	.50	.70	−.20	7.25	7.93	−.68
1970...	7.30	7.32	−.02	1.10	.81	.29	8.40	8.12	.28
1975...	8.75	9.29	−.54	1.15	1.36	−.21	9.90	10.65	−.75
1980...	9.04	9.36	−.32	1.12	1.38	−.26	10.16	10.74	−.58
1985...	[1]10.71	9.93	.78	[1]1.07	1.13	−.06	[1]11.79	11.06	.72
1986...	10.59	9.83	.76	1.01	1.11	−.10	11.60	10.94	.66
1987...	10.57	9.59	.97	1.00	1.10	−.10	11.56	10.69	.88
1988[2]...	11.22	9.59	1.63	1.06	1.08	−.02	12.29	10.67	1.62
1989[2]...	11.17	9.51	1.66	1.06	1.06	(3)	12.23	10.57	1.67
1990[2]...	[1]11.32	9.66	1.65	[1]1.17	1.09	.09	[1]12.49	10.75	1.74
1991[2]...	11.44	10.15	1.29	1.21	1.18	.03	12.65	11.33	1.32
1992[2]...	11.43	10.27	1.16	1.21	1.26	−.06	12.64	11.53	1.11
1993[2]...	11.40	10.29	1.11	1.21	1.34	−.13	12.61	11.64	.98
Intermediate:									
1994...	11.42	10.24	1.18	1.21	1.40	−.19	12.63	11.64	.98
1995...	[1]11.39	10.21	1.19	[1]1.21	1.47	−.26	[1]12.60	11.67	.93
1996...	11.42	10.19	1.23	1.21	1.52	−.31	12.63	11.71	.92
1997...	11.42	10.15	1.27	1.21	1.57	−.35	12.63	11.72	.92
1998...	11.42	10.12	1.30	1.21	1.62	−.41	12.64	11.74	.90
1999...	11.42	10.09	1.34	1.21	1.67	−.45	12.64	11.75	.88
2000...	[1]11.20	10.06	1.14	[1]1.43	1.71	−.27	[1]12.64	11.77	.87
2001...	11.21	10.05	1.15	1.43	1.75	−.32	12.64	11.80	.84
2002...	11.21	10.04	1.16	1.44	1.79	−.36	12.64	11.83	.81
2003...	11.21	10.03	1.18	1.44	1.83	−.40	12.64	11.86	.78
Low Cost:									
1994...	11.41	10.13	1.28	1.21	1.36	−.15	12.62	11.50	1.13
1995...	[1]11.37	9.96	1.41	[1]1.21	1.38	−.17	[1]12.58	11.34	1.24
1996...	11.41	9.79	1.62	1.21	1.39	−.18	12.62	11.18	1.44
1997...	11.41	9.62	1.78	1.21	1.40	−.19	12.62	11.02	1.60
1998...	11.41	9.47	1.94	1.21	1.41	−.20	12.62	10.88	1.74
1999...	11.41	9.33	2.08	1.21	1.42	−.20	12.62	10.75	1.87
2000...	[1]11.19	9.21	1.97	[1]1.43	1.42	.01	[1]12.62	10.64	1.98
2001...	11.18	9.11	2.07	1.43	1.43	(3)	12.62	10.54	2.07
2002...	11.18	9.03	2.16	1.43	1.44	−.01	12.62	10.47	2.15
2003...	11.18	8.94	2.24	1.43	1.46	−.03	12.62	10.40	2.21
High Cost:									
1994...	11.42	10.30	1.12	1.21	1.44	−.22	12.63	11.73	.89
1995...	[1]11.44	10.56	.87	[1]1.21	1.57	−.36	[1]12.65	12.13	.52
1996...	11.43	10.56	.87	1.21	1.66	−.45	12.64	12.22	.42
1997...	11.43	10.63	.80	1.21	1.75	−.54	12.64	12.38	.27
1998...	11.44	11.11	.34	1.22	1.93	−.71	12.66	13.03	−.37
1999...	11.45	11.19	.26	1.22	2.03	−.82	12.67	13.22	−.56
2000...	[1]11.23	11.18	.05	[1]1.44	2.12	−.68	[1]12.67	13.30	−.63
2001...	11.23	11.21	.02	1.44	2.20	−.77	12.67	13.42	−.75
2002...	11.23	11.28	−.04	1.44	2.29	−.85	12.67	13.56	−.89
2003...	11.24	11.33	−.10	1.44	2.37	−.93	12.68	13.70	−1.02

[1]Income rates for 1985, 1990, 1995, and 2000 are modified to include adjustments to the lump-sum payments received in 1983 from the general fund of the Treasury for the cost of noncontributory wage credits for military service in 1940-56.

[2]Figures shown are preliminary.

[3]Between −0.005 and 0.005 percent of taxable payroll.

Notes:

1. The income rate excludes interest income and certain transfers from the general fund of the Treasury.
2. Totals do not necessarily equal the sums of rounded components.

Estimates of the operations of the trust funds during calendar years 1994-2003 have been presented in the preceding tables on the basis of three different sets of economic assumptions, because of the uncertainty of future economic and demographic developments. Under the provisions of the Social Security Act, estimates of the expected operations and status of the trust funds during the next 5 *fiscal* years are required to be shown in this report. Accordingly, detailed estimates of the expected operations and status of the trust funds during fiscal years 1994-98 are shown in the remaining tables of this section for the intermediate assumptions (alternative II) only. Similar detailed estimates are also shown for 5 additional fiscal years (1999-2003) and on a calendar-year basis for 1994-2003.

Data on the actual operations of the OASI Trust Fund for selected years during 1940-93, and estimates of the expected operations of the trust fund during 1994-2003 on the basis of the intermediate assumptions, are shown in tables II.F7 and II.F8 on a fiscal- and calendar-year basis, respectively. Corresponding figures on the operations of the DI Trust Fund are shown in tables II.F9 and II.F10. Operations of both trust funds combined are shown in tables II.F11 and II.F12. (Data relating to the operations of the two trust funds for years not shown in tables II.F7-II.F12 are contained in past annual reports.) The figures shown in tables II.F8, II.F10, and II.F12 for 1987, 1988, 1992, and 1993 are adjusted to reflect 12 months of benefit payments in each year. The amounts estimated for 1998 and 1999 are similarly adjusted.

TABLE II.F7.—OPERATIONS OF THE OASI TRUST FUND DURING SELECTED FISCAL YEARS 1940-93 AND ESTIMATED FUTURE OPERATIONS DURING FISCAL YEARS 1994-2003, ON THE BASIS OF THE INTERMEDIATE SET OF ASSUMPTIONS

[In millions]

Fiscal year[1]	Income					Expenditures						
	Total	Net contributions[2]	Income from taxation of benefits	Payments from the general fund of the Treasury[3]	Net interest[4]	Total	Benefit payments[5]	Administrative expenses	Transfers to Railroad Retirement program	Interfund borrowing transfers[6]	Net increase in fund	Fund at end of period
Historical data:												
1940 ..	$592	$550	—	—	$42	$28	$16	$12	—	—	$564	$1,745
1945 ..	1,434	1,310	—	—	124	267	240	27	—	—	1,167	6,613
1950 ..	2,367	2,106	—	$4	257	784	727	57	—	—	1,583	12,893
1955 ..	5,525	5,087	—	—	438	4,427	4,333	103	–$10	—	1,098	21,141
1960 ..	10,360	9,843	—	—	517	11,073	10,270	202	600	—	–713	20,829
1965 ..	16,443	15,857	—	—	586	15,962	15,226	300	436	—	482	20,180
1970 ..	31,746	29,955	—	442	1,350	27,321	26,268	474	579	—	4,425	32,616
1975 ..	58,757	56,017	—	447	2,292	56,676	54,847	848	982	—	2,081	39,948
1980 ..	100,051	97,608	—	557	1,886	103,228	100,626	1,160	1,442	—	–3,177	24,566
1985 ..	179,881	175,305	$3,151	105	1,321	169,210	165,310	1,589	2,310	–$4,364	6,308	33,877
1986 ..	195,331	187,007	3,329	2,293	2,701	178,534	174,340	1,609	2,585	–13,155	3,642	37,519
1987 ..	206,846	199,554	3,323	69	3,900	186,101	182,003	1,541	2,557	—	20,745	58,265
1988 ..	235,720	226,409	3,335	55	5,922	197,021	192,502	1,729	2,790	—	38,700	96,964
1989 ..	260,457	247,116	3,638	43	9,660	209,102	204,600	1,657	2,845	—	51,355	148,319
1990 ..	278,607	261,506	2,924	34	14,143	223,481	218,948	1,564	2,969	—	55,126	203,445
1991 ..	293,288	270,841	5,790	–2,089	18,746	241,316	236,195	1,746	3,375	—	51,972	255,417
1992 ..	307,102	278,506	6,019	19	22,557	256,239	251,268	1,823	3,148	—	50,862	306,280
1993 ..	319,298	287,569	5,893	14	25,822	269,934	264,561	2,021	3,353	—	49,364	355,644
Estimates:												
1994 ..	339,890	306,090	5,400	10	28,390	282,406	277,027	1,839	3,540	—	57,484	413,128
1995 ..	361,982	324,183	6,287	7	31,504	296,074	290,507	2,023	3,544	—	65,907	479,035
1996 ..	382,945	341,942	6,656	–693	35,040	310,492	304,843	2,029	3,620	—	72,453	551,488
1997 ..	405,245	359,170	7,051	4	39,019	325,820	320,046	2,064	3,710	—	79,425	630,914
1998 ..	429,183	378,188	7,481	3	43,510	341,827	335,916	2,110	3,802	—	87,356	718,270
1999 ..	454,672	398,108	7,948	2	48,614	359,050	353,013	2,164	3,873	—	95,622	813,892
2000 ..	476,720	414,164	8,423	2	54,132	377,929	371,747	2,224	3,958	—	98,791	912,683
2001 ..	504,526	435,654	8,916	1	59,954	398,607	392,181	2,285	4,140	—	105,919	1,018,602
2002 ..	535,952	460,032	9,447	1	66,472	420,851	414,213	2,352	4,287	—	115,101	1,133,703
2003 ..	570,150	486,496	10,057	1	73,596	444,481	437,629	2,423	4,430	—	125,668	1,259,371

See following page for footnotes.

[1]Under the Congressional Budget Act of 1974 (Public Law 93-344), fiscal years 1977 and later consist of the 12 months ending on September 30 of each year. Fiscal years prior to 1977 consisted of the 12 months ending on June 30 of each year.

[2]Beginning in 1983, includes transfers from general fund of Treasury representing contributions that would have been paid on deemed wage credits for military service in 1957 and later, if such credits were considered to be covered wages.

[3]Includes payments (1) in 1947-52 and in 1967 and later, for costs of non-contributory wage credits for military service performed before 1957; (2) in 1972-83, for costs of deemed wage credits for military service performed after 1956; and (3) in 1969 and later, for costs of benefits to certain uninsured persons who attained age 72 before 1968.

[4]Net interest includes net profits or losses on marketable investments. Beginning in 1967, administrative expenses are charged currently to the trust fund on an estimated basis, with a final adjustment, including interest, made in the following fiscal year. The amounts of these interest adjustments are included in net interest. For years prior to 1967, a description of the method of accounting for administrative expenses is contained in the 1970 Annual Report. Beginning in October 1973, the figures shown include relatively small amounts of gifts to the fund. Net interest for 1983-86 reflects payments from a borrowing trust fund to a lending trust fund for interest on amounts owed under the interfund borrowing provisions. During 1983-91, interest paid from the trust fund to the general fund on advance tax transfers is reflected. The amounts shown for 1985 and 1986 include interest adjustments of $76.5 million and $11.5 million, respectively, on unnegotiated checks issued before April 1985.

[5]Beginning in 1967, includes payments for vocational rehabilitation services furnished to disabled persons receiving benefits because of their disabilities. Beginning in 1983, amounts are reduced by amount of reimbursement for unnegotiated benefit checks.

[6]Negative figures represent amounts repaid from the OASI Trust Fund to the DI and HI Trust Funds.

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

TABLE II.F8.—OPERATIONS OF THE OASI TRUST FUND DURING SELECTED CALENDAR YEARS 1940-93 AND ESTIMATED FUTURE OPERATIONS DURING CALENDAR YEARS 1994-2003, ON THE BASIS OF THE INTERMEDIATE SET OF ASSUMPTIONS

[In millions]

Calendar year	Income					Expenditures						
	Total	Net contributions[1]	Income from taxation of benefits	Payments from the general fund of the Treasury[2]	Net interest[3]	Total	Benefit payments[4]	Administrative expenses	Transfers to Railroad Retirement program	Interfund borrowing transfers[5]	Net increase in fund	Fund at end of period
Historical data:												
1940 ..	$368	$325	—	—	$43	$62	$35	$26	—	—	$306	$2,031
1945 ..	1,420	1,285	—	—	134	304	274	30	—	—	1,116	7,121
1950 ..	2,928	2,667	—	$4	257	1,022	961	61	—	—	1,905	13,721
1955 ..	6,167	5,713	—	—	454	5,079	4,968	119	–$7	—	1,087	21,663
1960 ..	11,382	10,866	—	—	516	11,198	10,677	203	318	—	184	20,324
1965 ..	16,610	16,017	—	—	593	17,501	16,737	328	436	—	–890	18,235
1970 ..	32,220	30,256	—	449	1,515	29,848	28,798	471	579	—	2,371	32,454
1975 ..	59,605	56,619	—	622	2,364	60,395	58,517	896	982	—	–789	36,987
1980 ..	105,841	103,355	—	641	1,845	107,678	105,082	1,154	1,442	—	–1,837	22,824
1985 ..	184,239	176,958	$3,208	2,203	1,871	171,150	167,248	1,592	2,310	–$4,364	8,725	35,842
1986 ..	197,393	190,741	3,424	160	3,069	181,000	176,813	1,601	2,585	–13,155	3,239	39,081
1987 ..	210,736	202,735	3,257	55	4,690	187,668	183,587	1,524	2,557	—	23,068	62,149
1988 ..	240,770	229,775	3,384	43	7,568	200,020	195,454	1,776	2,790	—	40,750	102,899
1989 ..	264,653	250,195	2,439	34	11,985	212,489	207,971	1,673	2,845	—	52,164	155,063
1990 ..	286,653	267,530	4,848	–2,089	16,363	227,519	222,987	1,563	2,969	—	59,134	214,197
1991 ..	299,286	272,574	5,864	19	20,829	245,634	240,467	1,792	3,375	—	53,652	267,849
1992 ..	311,162	280,992	5,852	14	24,303	259,861	254,883	1,830	3,148	—	51,301	319,150
1993 ..	323,277	290,905	5,335	10	27,027	273,104	267,755	1,996	3,353	—	50,173	369,322
Estimates:												
1994 ..	343,651	307,740	6,000	7	29,903	285,677	280,253	1,884	3,540	—	57,974	427,296
1995 ..	366,643	327,720	6,385	–693	33,231	299,447	293,878	2,025	3,544	—	67,196	494,492
1996 ..	388,920	345,213	6,746	4	36,956	314,160	308,502	2,038	3,620	—	74,760	569,252
1997 ..	411,654	363,306	7,154	3	41,190	329,703	323,918	2,075	3,710	—	81,950	651,202
1998 ..	435,525	381,938	7,591	2	45,993	345,866	339,941	2,123	3,802	—	89,659	740,862
1999 ..	461,825	402,429	8,068	2	51,326	363,483	357,432	2,179	3,873	—	98,342	839,204
2000 ..	482,822	417,297	8,542	1	56,982	382,768	376,571	2,239	3,958	—	100,054	939,257
2001 ..	512,723	440,546	9,041	1	63,135	403,873	397,431	2,302	4,140	—	108,850	1,048,107
2002 ..	544,891	465,361	9,584	1	69,945	426,543	419,886	2,370	4,287	—	118,348	1,166,455
2003 ..	579,779	492,174	10,216	1	77,388	450,461	443,591	2,441	4,430	—	129,318	1,295,773

See following page for footnotes.

[1]Beginning in 1983, includes transfers from general fund of Treasury representing contributions that would have been paid on deemed wage credits for military service in 1957 and later, if such credits were considered to be covered wages.

[2]Includes payments (1) in 1947-51 and in 1966 and later, for costs of non-contributory wage credits for military service performed before 1957; (2) in 1971-82, for costs of deemed wage credits for military service performed after 1956; and (3) in 1968 and later, for costs of benefits to certain uninsured persons who attained age 72 before 1968.

[3]Net interest includes net profits or losses on marketable investments. Beginning in 1967, administrative expenses are charged currently to the trust fund on an estimated basis, with a final adjustment, including interest, made in the following fiscal year. The amounts of these interest adjustments are included in net interest. For years prior to 1967, a description of the method of accounting for administrative expenses is contained in the 1970 Annual Report. Beginning in October 1973, the figures shown include relatively small amounts of gifts to the fund. Net interest for 1983-86 reflects payments from a borrowing trust fund to a lending trust fund for interest on amounts owed under the interfund borrowing provisions. During 1983-90, interest paid from the trust fund to the general fund on advance tax transfers is reflected. The amount shown for 1985 includes an interest adjustment of $88 million on unnegotiated checks issued before April 1985.

[4]Beginning in 1966, includes payments for vocational rehabilitation services furnished to disabled persons receiving benefits because of their disabilities. Beginning in 1983, amounts are reduced by amount of reimbursement for unnegotiated benefit checks.

[5]Negative figures represent amounts repaid from the OASI Trust Fund to the DI and HI Trust Funds.

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

TABLE II.F9.—OPERATIONS OF THE DI TRUST FUND DURING SELECTED FISCAL YEARS 1960-93 AND ESTIMATED FUTURE OPERATIONS DURING FISCAL YEARS 1994-2003, ON THE BASIS OF THE INTERMEDIATE SET OF ASSUMPTIONS

[In millions]

Fiscal year[1]	Income					Expenditures						
	Total	Net contributions[2]	Income from taxation of benefits	Payments from the general fund of the Treasury[3]	Net interest[4]	Total	Benefit payments[5]	Administrative expenses	Transfers to Railroad Retirement program	Interfund borrowing transfers[6]	Net increase in fund	Fund at end of period
Historical data:												
1960 ..	$1,034	$987	—	—	$47	$533	$528	$32	–$27	—	$501	$2,167
1965 ..	1,237	1,175	—	—	62	1,495	1,392	79	24	—	–257	2,007
1970 ..	4,380	4,141	—	$16	223	2,954	2,795	149	10	—	1,426	5,104
1975 ..	7,920	7,356	—	52	512	7,982	7,701	253	29	—	–62	8,191
1980 ..	17,376	16,805	—	118	453	15,320	14,998	334	–12	—	2,056	7,680
1985 ..	17,984	16,876	$217	—	891	19,294	18,648	603	43	$2,540	1,230	5,873
1986 ..	20,130	18,139	229	1,017	746	20,196	19,529	600	68	2,541	2,475	8,348
1987 ..	20,047	19,324	7–16	—	738	21,222	20,427	738	57	—	–1,175	7,173
1988 ..	22,369	21,736	56	—	577	22,269	21,405	803	61	—	100	7,273
1989 ..	24,479	23,694	135	—	650	23,389	22,550	751	88	—	1,090	8,363
1990 ..	28,215	27,291	158	—	766	25,124	24,327	717	80	—	3,091	11,455
1991 ..	29,322	28,953	131	–775	1,014	27,780	26,909	789	82	—	1,543	12,997
1992 ..	31,168	29,871	218	—	1,080	31,285	30,382	845	58	—	–116	12,881
1993 ..	32,056	30,822	268	—	966	34,632	33,615	935	83	—	–2,576	10,305
Estimates:												
1994 ..	33,780	32,795	307	—	678	38,124	37,020	1,028	76	—	–4,343	5,962
1995[8] .	35,297	34,734	334	—	229	42,057	40,852	1,124	81	—	–6,760	–799
1996[8] .	36,700	36,636	369	–38	–266	45,941	44,740	1,111	90	—	–9,240	–10,039
1997[8] .	38,008	38,485	398	—	–875	49,926	48,661	1,161	103	—	–11,917	–21,956
1998[8] .	39,312	40,526	443	—	–1,657	54,264	52,926	1,223	116	—	–14,952	–36,909
1999[8] .	40,484	42,662	489	—	–2,666	58,909	57,490	1,292	127	—	–18,425	–55,333
2000[8] .	47,780	51,067	535	—	–3,821	63,766	62,260	1,368	139	—	–15,986	–71,319
2001[8] .	52,088	56,337	587	—	–4,836	69,003	67,417	1,448	137	—	–16,915	–88,235
2002[8] .	54,148	59,494	645	—	–5,991	74,664	72,981	1,536	147	—	–20,516	–108,750
2003[8] .	56,231	62,900	712	—	–7,381	80,801	79,005	1,631	166	—	–24,570	–133,320

See following page for footnotes.

[1]Under the Congressional Budget Act of 1974 (Public Law 93-344), fiscal years 1977 and later consist of the 12 months ending on September 30 of each year. Fiscal years prior to 1977 consisted of the 12 months ending on June 30 of each year.

[2]Beginning in 1983, includes transfers from general fund of Treasury representing contributions that would have been paid on deemed wage credits for military service in 1957 and later, if such credits were considered to be covered wages.

[3]Includes payments (1) in 1967 and later, for costs of noncontributory wage credits for military service performed before 1957; and (2) in 1972-83, for costs of deemed wage credits for military service performed after 1956.

[4]Net interest includes net profits or losses on marketable investments. Beginning in 1967, administrative expenses are charged currently to the trust fund on an estimated basis, with a final adjustment, including interest, made in the following fiscal year. The amounts of these interest adjustments are included in net interest. For years prior to 1967, a description of the method of accounting for administrative expenses is contained in the 1970 Annual Report. Beginning in July 1974, the figures shown include relatively small amounts of gifts to the fund. Net interest for 1983-86 reflects payments from a borrowing trust fund to a lending trust fund for interest on amounts owed under the interfund borrowing provisions. During 1983-91, interest paid from the trust fund to the general fund on advance tax transfers is reflected. The amount shown for 1985 includes an interest adjustment of $14.8 million on unnegotiated checks issued before April 1985. Figures for 1995-2003 reflect theoretical interest paid from the trust fund to the general fund on theoretical debt borrowings.

[5]Beginning in 1967, includes payments for vocational rehabilitation services furnished to disabled persons receiving benefits because of their disabilities. Beginning in 1983, amounts are reduced by amount of reimbursement for unnegotiated benefit checks.

[6]Figures represent repayment of amounts lent by the DI Trust Fund to the OASI Trust Fund in calendar year 1982.

[7]Reflects $195 million in transfers from the DI Trust Fund to the general fund of the Treasury to correct estimated amounts transferred for calendar years 1984 and 1985.

[8]The DI Trust Fund would be depleted in fiscal year 1995, when assets would become insufficient to pay benefits on time. Thus, figures shown for year of depletion and later are theoretical. See text for details.

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

TABLE II.F10.—OPERATIONS OF THE DI TRUST FUND DURING SELECTED CALENDAR YEARS 1960-93 AND ESTIMATED FUTURE OPERATIONS DURING CALENDAR YEARS 1994-2003, ON THE BASIS OF THE INTERMEDIATE SET OF ASSUMPTIONS

[In millions]

Calendar year	Income					Expenditures						
	Total	Net contributions[1]	Income from taxation of benefits	Payments from the general fund of the Treasury[2]	Net interest[3]	Total	Benefit payments[4]	Administrative expenses	Transfers to Railroad Retirement program	Interfund borrowing transfers[5]	Net increase in fund	Fund at end of period
Historical data:												
1960 ..	$1,063	$1,010	—	—	$53	$600	$568	$36	–$5	—	$464	$2,289
1965 ..	1,247	1,188	—	—	59	1,687	1,573	90	24	—	–440	1,606
1970 ..	4,774	4,481	—	$16	277	3,259	3,085	164	10	—	1,514	5,614
1975 ..	8,035	7,444	—	90	502	8,790	8,505	256	29	—	–754	7,354
1980 ..	13,871	13,255	—	130	485	15,872	15,515	368	–12	—	–2,001	3,629
1985 ..	19,301	17,191	$222	1,017	870	19,478	18,827	608	43	$2,540	2,363	6,321
1986 ..	19,439	18,399	238	—	803	20,522	19,853	600	68	2,541	1,459	7,780
1987 ..	20,303	19,691	[6]–36	—	648	21,425	20,519	849	57	—	–1,122	6,658
1988 ..	22,699	22,039	61	—	600	22,494	21,695	737	61	—	206	6,864
1989 ..	24,795	23,993	95	—	707	23,753	22,911	754	88	—	1,041	7,905
1990 ..	28,791	28,539	144	–775	883	25,616	24,829	707	80	—	3,174	11,079
1991 ..	30,390	29,137	190	—	1,063	28,571	27,695	794	82	—	1,819	12,898
1992 ..	31,430	30,136	232	—	1,062	32,004	31,112	834	58	—	–574	12,324
1993 ..	32,301	31,185	281	—	835	35,662	34,613	966	83	—	–3,361	8,963
Estimates:												
1994 ..	33,740	32,966	309	—	465	39,138	37,997	1,064	76	—	–5,398	3,565
1995[7] .	35,423	35,113	343	–38	5	43,012	41,810	1,121	81	—	–7,589	–4,024
1996[7] .	36,816	36,988	377	—	–549	46,930	45,717	1,123	90	—	–10,114	–14,138
1997[7] .	38,089	38,928	405	—	–1,244	50,918	49,640	1,175	103	—	–12,829	–26,967
1998[7] .	39,252	40,929	456	—	–2,132	55,382	54,027	1,239	116	—	–16,129	–43,096
1999[7] .	40,376	43,125	499	—	–3,248	60,069	58,632	1,310	127	—	–19,692	–62,788
2000[7] .	49,647	53,436	546	—	–4,336	64,993	63,468	1,386	139	—	–15,347	–78,135
2001[7] .	52,187	56,972	601	—	–5,385	70,354	68,748	1,469	137	—	–18,167	–96,302
2002[7] .	54,165	60,160	660	—	–6,655	76,103	74,398	1,558	147	—	–21,938	–118,240
2003[7] .	56,192	63,637	730	—	–8,175	82,422	80,603	1,654	166	—	–26,230	–144,470

See following page for footnotes.

[1]Beginning in 1983, includes transfers from general fund of Treasury representing contributions that would have been paid on deemed wage credits for military service in 1957 and later, if such credits were considered to be covered wages.

[2]Includes payments (1) in 1966 and later, for costs of noncontributory wage credits for military service performed before 1957; and (2) in 1971-82, for costs of deemed wage credits for military service performed after 1956.

[3]Net interest includes net profits or losses on marketable investments. Beginning in 1967, administrative expenses are charged currently to the trust fund on an estimated basis, with a final adjustment, including interest, made in the following fiscal year. The amounts of these interest adjustments are included in net interest. For years prior to 1967, a description of the method of accounting for administrative expenses is contained in the 1970 Annual Report. Beginning in July 1974, the figures shown include relatively small amounts of gifts to the fund. Net interest for 1983-86 reflects payments from a borrowing trust fund to a lending trust fund for interest on amounts owed under the interfund borrowing provisions. During 1983-90, interest paid from the trust fund to the general fund on advance tax transfers is reflected. The amount shown for 1985 includes an interest adjustment of $14.8 million on unnegotiated checks issued before April 1985. Figures for 1995-2003 reflect theoretical interest paid from the trust fund to the general fund on theoretical debt borrowings.

[4]Beginning in 1966, includes payments for vocational rehabilitation services furnished to disabled persons receiving benefits because of their disabilities. Beginning in 1983, amounts are reduced by amount of reimbursement for unnegotiated benefit checks.

[5]Figures represent repayment of amounts lent by the DI Trust Fund to the OASI Trust Fund in calendar year 1982.

[6]Reflects $195 million in transfers from the DI Trust Fund to the general fund of the Treasury to correct estimated amounts transferred for calendar years 1984 and 1985.

[7]The DI Trust Fund would be depleted in calendar year 1995, when assets would become insufficient to pay benefits on time. Thus, figures shown for year of depletion and later are theoretical. See text for details.

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

TABLE II.F11.—OPERATIONS OF THE OASI AND DI TRUST FUNDS, COMBINED, DURING SELECTED FISCAL YEARS 1960-93 AND ESTIMATED FUTURE OPERATIONS DURING FISCAL YEARS 1994-2003, ON THE BASIS OF THE INTERMEDIATE SET OF ASSUMPTIONS

[In millions]

	Income					Expenditures						
Fiscal year[1]	Total	Net contributions[2]	Income from taxation of benefits	Payments from the general fund of the Treasury[3]	Net interest[4]	Total	Benefit payments[5]	Administrative expenses	Transfers to Railroad Retirement program	Interfund borrowing transfers[6]	Net increase in funds	Funds at end of period
Historical data:												
1960 ..	$11,394	$10,830	—	—	$564	$11,606	$10,798	$234	$574	—	-$212	$22,996
1965 ..	17,681	17,032	—	—	648	17,456	16,618	379	459	—	224	22,187
1970 ..	36,127	34,096	—	$458	1,572	30,275	29,063	623	589	—	5,851	37,720
1975 ..	66,677	63,374	—	499	2,804	64,658	62,547	1,101	1,010	—	2,018	48,138
1980 ..	117,427	114,413	—	675	2,339	118,548	115,624	1,494	1,430	—	-1,121	32,246
1985 ..	197,865	192,181	$3,368	105	2,211	188,504	183,959	2,192	2,353	-$1,824	7,538	39,750
1986 ..	215,461	205,146	3,558	3,310	3,447	198,730	193,869	2,209	2,653	-10,613	6,117	45,867
1987 ..	226,893	218,878	3,307	69	4,638	207,323	202,430	2,279	2,614	—	19,570	65,437
1988 ..	258,090	248,145	3,390	55	6,500	219,290	213,907	2,532	2,851	—	38,800	104,237
1989 ..	284,936	270,811	3,772	43	10,310	232,491	227,150	2,407	2,934	—	52,445	156,682
1990 ..	306,822	288,797	3,081	34	14,909	248,605	243,275	2,280	3,049	—	58,217	214,900
1991 ..	322,611	299,794	5,921	-2,864	19,759	269,096	263,104	2,535	3,457	—	53,515	268,415
1992 ..	338,270	308,377	6,237	19	23,637	287,524	281,650	2,668	3,206	—	50,746	319,161
1993 ..	351,354	318,391	6,161	14	26,788	304,566	298,176	2,955	3,435	—	46,788	365,949
Estimates:												
1994 ..	373,670	338,885	5,707	10	29,068	320,530	314,047	2,867	3,616	—	53,140	419,089
1995[7] .	397,279	358,917	6,621	7	31,734	338,132	331,359	3,147	3,625	—	59,147	478,236
1996[7] .	419,646	378,578	7,025	-731	34,774	356,433	349,583	3,140	3,710	—	63,213	541,449
1997[7] .	443,253	397,655	7,450	4	38,144	375,745	368,707	3,225	3,813	—	67,508	608,957
1998[7] .	468,495	418,714	7,924	3	41,853	396,091	388,841	3,332	3,918	—	72,403	681,361
1999[7] .	495,156	440,770	8,436	2	45,948	417,959	410,503	3,456	4,000	—	77,198	758,559
2000[7] .	524,501	465,231	8,957	2	50,311	441,696	434,007	3,591	4,097	—	82,805	841,364
2001[7] .	556,613	491,991	9,503	1	55,118	467,610	459,598	3,734	4,277	—	89,004	930,367
2002[7] .	590,100	519,526	10,092	1	60,481	495,515	487,193	3,888	4,434	—	94,585	1,024,953
2003[7] .	626,381	549,396	10,769	1	66,215	525,282	516,633	4,053	4,595	—	101,099	1,126,051

See following page for footnotes.

[1]Under the Congressional Budget Act of 1974 (Public Law 93-344), fiscal years 1977 and later consist of the 12 months ending on September 30 of each year. Fiscal years prior to 1977 consisted of the 12 months ending on June 30 of each year.

[2]Beginning in 1983, includes transfers from general fund of Treasury representing contributions that would have been paid on deemed wage credits for military service in 1957 and later, if such credits were considered to be covered wages.

[3]Includes payments (1) in 1947-52 and in 1967 and later, for costs of non-contributory wage credits for military service performed before 1957; (2) in 1972-83, for costs of deemed wage credits for military service performed after 1956; and (3) in 1969 and later, for costs of benefits to certain uninsured persons who attained age 72 before 1968.

[4]Net interest includes net profits or losses on marketable investments. Beginning in 1967, administrative expenses are charged currently to the trust funds on an estimated basis, with a final adjustment, including interest, made in the following fiscal year. The amounts of these interest adjustments are included in net interest. For years prior to 1967, a description of the method of accounting for administrative expenses is contained in the 1970 Annual Report. Beginning in October 1973, the figures shown include relatively small amounts of gifts to the funds. Net interest for 1983-86 reflects payments from a borrowing trust fund to a lending trust fund for interest on amounts owed under the interfund borrowing provisions. During 1983-91, interest paid from the trust funds to the general fund of the Treasury on advance tax transfers is reflected. The amounts shown for 1985 and 1986 include interest adjustments of $91.3 million and $11.5 million, respectively, on unnegotiated checks issued before April 1985. Figures for 1995-2003 reflect theoretical interest paid from the DI Trust Fund to the general fund on theoretical debt borrowings.

[5]Beginning in 1967, includes payments for vocational rehabilitation services furnished to disabled persons receiving benefits because of their disabilities. Beginning in 1983, amounts are reduced by amount of reimbursement for unnegotiated benefit checks.

[6]Negative figures represent amounts repaid from the OASI Trust Fund to the HI Trust Fund.

[7]The DI Trust Fund would be depleted in fiscal year 1995 when assets would become insufficient to pay benefits on time. Thus, figures shown for the combined trust funds for the year of depletion and later are theoretical. See text for details.

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

TABLE II.F12.—OPERATIONS OF THE OASI AND DI TRUST FUNDS, COMBINED, DURING SELECTED CALENDAR YEARS 1960-93 AND ESTIMATED FUTURE OPERATIONS DURING CALENDAR YEARS 1994-2003, ON THE BASIS OF THE INTERMEDIATE SET OF ASSUMPTIONS

[In millions]

Calendar year	Income					Expenditures						
	Total	Net contributions[1]	Income from taxation of benefits	Payments from the general fund of the Treasury[2]	Net interest[3]	Total	Benefit payments[4]	Administrative expenses	Transfers to Railroad Retirement program	Interfund borrowing transfers[5]	Net increase in funds	Funds at end of period
Historical data:												
1960 . .	$12,445	$11,876	—	—	$569	$11,798	$11,245	$240	$314	—	$647	$22,613
1965 . .	17,857	17,205	—	—	651	19,187	18,311	418	459	—	−1,331	19,841
1970 . .	36,993	34,737	—	$465	1,791	33,108	31,884	635	589	—	3,886	38,068
1975 . .	67,640	64,259	—	515	2,866	69,184	67,022	1,152	1,010	—	−1,544	44,342
1980 . .	119,712	116,711	—	670	2,330	123,550	120,598	1,522	1,430	—	−3,838	26,453
1985 . .	203,540	194,149	$3,430	3,220	2,741	190,628	186,075	2,200	2,353	−$1,824	11,088	42,163
1986 . .	216,833	209,140	3,662	160	3,871	201,522	196,667	2,202	2,653	−10,613	4,698	46,861
1987 . .	231,039	222,425	3,221	55	5,338	209,093	204,106	2,373	2,614	—	21,946	68,807
1988 . .	263,469	251,814	3,445	43	8,168	222,514	217,149	2,513	2,851	—	40,955	109,762
1989 . .	289,448	274,189	2,534	34	12,692	236,242	230,882	2,427	2,934	—	53,206	162,968
1990 . .	315,443	296,070	4,992	−2,864	17,245	253,135	247,816	2,270	3,049	—	62,309	225,277
1991 . .	329,676	301,711	6,054	19	21,892	274,205	268,162	2,587	3,457	—	55,471	280,747
1992 . .	342,591	311,128	6,084	14	25,365	291,865	285,995	2,664	3,206	—	50,726	331,473
1993 . .	355,578	322,090	5,616	10	27,862	308,766	302,368	2,962	3,435	—	46,812	378,285
Estimates:												
1994 . .	377,391	340,706	6,309	7	30,368	324,815	318,250	2,949	3,616	—	52,576	430,861
1995[6] .	402,065	362,833	6,728	−731	33,235	342,459	335,688	3,146	3,625	—	59,607	490,468
1996[6] .	425,736	382,201	7,124	4	36,407	361,089	354,219	3,160	3,710	—	64,646	555,114
1997[6] .	449,743	402,234	7,559	3	39,946	380,621	373,557	3,250	3,813	—	69,121	624,235
1998[6] .	474,778	422,867	8,047	2	43,861	401,248	393,968	3,362	3,918	—	73,530	697,766
1999[6] .	502,201	445,554	8,568	2	48,078	423,552	416,064	3,488	4,000	—	78,649	776,415
2000[6] .	532,469	470,733	9,088	1	52,646	447,762	440,039	3,625	4,097	—	84,707	861,122
2001[6] .	564,911	497,518	9,642	1	57,749	474,227	466,179	3,771	4,277	—	90,683	951,805
2002[6] .	599,055	525,521	10,244	1	63,290	502,646	494,284	3,928	4,434	—	96,410	1,048,215
2003[6] .	635,972	555,811	10,946	1	69,214	532,884	524,194	4,095	4,595	—	103,088	1,151,303

See following page for footnotes.

[1]Beginning in 1983, includes transfers from general fund of Treasury representing contributions that would have been paid on deemed wage credits for military service in 1957 and later, if such credits were considered to be covered wages.

[2]Includes payments (1) in 1947-51 and in 1966 and later, for costs of non-contributory wage credits for military service performed before 1957; (2) in 1971-82, for costs of deemed wage credits for military service performed after 1956; and (3) in 1968 and later, for costs of benefits to certain uninsured persons who attained age 72 before 1968.

[3]Net interest includes net profits or losses on marketable investments. Beginning in 1967, administrative expenses are charged currently to the trust funds on an estimated basis, with a final adjustment, including interest, made in the following fiscal year. The amounts of these interest adjustments are included in net interest. For years prior to 1967, a description of the method of accounting for administrative expenses is contained in the 1970 Annual Report. Beginning in October 1973, the figures shown include relatively small amounts of gifts to the funds. Net interest for 1983-86 reflects payments from a borrowing trust fund to a lending trust fund for interest on amounts owed under the interfund borrowing provisions. During 1983-90, interest paid from the trust funds to the general fund of the Treasury on advance tax transfers is reflected. The amount shown for 1985 includes an interest adjustment of $102.8 million on unnegotiated checks issued before April 1985. Figures for 1995-2003 reflect theoretical interest paid from the DI Trust Fund to the general fund on theoretical debt borrowings.

[4]Beginning in 1966, includes payments for vocational rehabilitation services furnished to disabled persons receiving benefits because of their disabilities. Beginning in 1983, amounts are reduced by amount of reimbursement for unnegotiated benefit checks.

[5]Negative figures represent amounts repaid from the OASI Trust Fund to the HI Trust Fund.

[6]The DI Trust Fund would be depleted in calendar year 1995 when assets would become insufficient to pay benefits on time. Thus, figures shown for the combined trust funds for the year of depletion and later are theoretical. See text for details.

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

2. Long-Range Actuarial Status of the Trust Funds

Historically, the actuarial balance (described earlier in this section) has been used as the principal measure of the actuarial status of the OASDI program. Actuarial balances have traditionally been computed for the 25-year valuation period encompassing 1994-2018, the 50-year valuation period covering 1994-2043, and the entire long-range (75-year) valuation period, 1994-2068.

Beginning with the 1991 Annual Report, actuarial balances have also been computed based on the intermediate (alternative II) assumptions for valuation periods that are 10 years, 11 years, and continuing through 75 years in length. This series of actuarial balances provides the basis for the test of long-range close actuarial balance, described earlier in this section.

In addition to these actuarial balances, other indicators of the financial condition of the program are shown in this report. One is the series of projected annual balances (that is, the differences between the projected annual income rates and annual cost rates), with particular attention being paid to the level of the annual balances at the end of the long-range period and the time at which the annual balances may change from positive to negative values. Another is the series of projected trust fund ratios, with particular attention being paid to the amount and year of maximum fund ratio accumulation and to the year of exhaustion of the funds. These additional indicators are defined in the introduction to this section.

The estimates are sensitive to changes in the underlying economic and demographic assumptions. The degree of sensitivity, however, varies considerably among the various assumptions. For example, variations in assumed fertility rates have little effect on the estimates for the early years, because almost all of the covered workers and beneficiaries projected for the early years were born prior to the start of the projection period. However, lower fertility rates have large impacts on the actuarial balance in the later years. Variations in economic factors, such as interest rates and increases in wages and prices, have significant effects on the estimates for the short term, as well as for the long term. In general, the degree of confidence that can be placed in the assumptions and estimates is greater 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 general range of future program experience. Section II.G contains a more detailed discussion of the effects on the estimates of varying certain economic and demographic assumptions.

Table II.F13 presents a comparison of the estimated annual income rates and cost rates by trust fund and alternative. As previously mentioned, the annual income rate excludes net interest income, as well as certain other transfers from the general fund of the Treasury. Detailed long-range projections of trust fund operations, in nominal dollar amounts, are shown in appendix III.B.

The projections for OASDI under the intermediate alternative II assumptions show income rates that increase slowly and steadily due to the combination of the flat payroll tax rate and the gradually increasing effect of the taxation of benefits. The pattern followed by the cost rates is much different. Costs as a percent of taxable payroll are projected to rise slowly for the next 15 years and then to increase rather rapidly for about the next 20 years (through 2030) as the "baby-boom" generation reaches retirement age. Cost rates continue rising slowly through 2035 and then decline slightly for the next 8 years as the "baby-boom" generation ages and the relatively small birth cohorts of the late 1970s reach retirement age. Thereafter, cost rates rise steadily, but slowly, reflecting projected increases in life expectancy. The cost rates during the third 25-year subperiod rise to a level exceeding 18 percent of taxable payroll under the intermediate alternative II assumptions. The income rate during the third 25-year subperiod is just over 13 percent of taxable payroll under alternative II.

Projected income rates under the low cost and high cost sets of assumptions (alternatives I and III, respectively) are very similar to those projected for alternative II as they are largely a reflection of the tax rates specified in the law. OASDI combined cost rates for alternatives I and III differ significantly in size from those projected for alternative II, but follow generally similar patterns. For the low cost alternative I, cost rates decline somewhat for about the first 15 years, and then rise, reaching the current level around 2017 and a peak of about 13.7 percent of payroll around 2030. Thereafter, cost rates decline gradually, reaching a level of about 12.5 percent of payroll by 2070. For the high cost alternative III, cost rates rise throughout the 75-year period, but at a relatively faster pace during the next 5 years due to the assumed economic recessions, and be-

tween 2010 and 2030 because of the aging of the "baby-boom" generation. During the third 25-year subperiod, the projected cost rate reaches 25 percent of payroll and continues rising.

The projected pattern of the OASDI annual balances (that is, the difference between the income rates and the cost rates) is important in the analysis of the financial condition of the program. Under the alternative II assumptions the annual balances are positive for 19 years (through 2012) and are negative thereafter. This annual deficit rises rapidly reaching 2 percent of taxable payroll by 2020 and continues rising thereafter, to a level of 5.67 percent of taxable payroll for 2070.

Under alternative I, projected OASDI actuarial balances are positive for over 25 years (through 2022), are then temporarily negative (through 2041), and thereafter are positive, reaching a level of over 0.5 percent of payroll by 2070. Under the more pessimistic alternative III, however, the OASDI actuarial balance is projected to be positive for only 4 years (through 1997) and to be negative thereafter, reaching deficits of 4 percent of payroll by 2020, 10 percent by 2050, and nearly 15 percent of payroll in 2070.

TABLE II.F13.—COMPARISON OF ESTIMATED INCOME RATES AND COST RATES BY TRUST FUND AND ALTERNATIVE, CALENDAR YEARS 1994-2070

[As a percentage of taxable payroll]

Calendar year	OASI			DI			Combined		
	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance
Intermediate:									
1994....	11.42	10.24	1.18	1.21	1.40	−0.19	12.63	11.64	0.98
1995....	11.39	10.21	1.19	1.21	1.47	−.26	12.60	11.67	.93
1996....	11.42	10.19	1.23	1.21	1.52	−.31	12.63	11.71	.92
1997....	11.42	10.15	1.27	1.21	1.57	−.35	12.63	11.72	.92
1998....	11.42	10.12	1.30	1.21	1.62	−.41	12.64	11.74	.90
1999....	11.42	10.09	1.34	1.21	1.67	−.45	12.64	11.75	.88
2000....	11.20	10.06	1.14	1.43	1.71	−.27	12.64	11.77	.87
2001....	11.21	10.05	1.15	1.43	1.75	−.32	12.64	11.80	.84
2002....	11.21	10.04	1.16	1.44	1.79	−.36	12.64	11.83	.81
2003....	11.21	10.03	1.18	1.44	1.83	−.40	12.64	11.86	.78
2005....	11.23	9.99	1.25	1.44	1.90	−.46	12.67	11.89	.78
2010....	11.31	10.24	1.07	1.44	2.03	−.59	12.75	12.27	.48
2015....	11.40	11.31	.09	1.45	2.10	−.66	12.85	13.42	−.56
2020....	11.50	12.82	−1.31	1.45	2.14	−.69	12.96	14.96	−2.01
2025....	11.60	14.15	−2.55	1.45	2.21	−.76	13.05	16.36	−3.31
2030....	11.67	15.03	−3.36	1.46	2.20	−.74	13.13	17.22	−4.10
2035....	11.71	15.37	−3.66	1.46	2.15	−.69	13.17	17.52	−4.35
2040....	11.73	15.27	−3.54	1.46	2.15	−.69	13.19	17.42	−4.23
2045....	11.74	15.18	−3.44	1.46	2.24	−.78	13.20	17.42	−4.22
2050....	11.77	15.35	−3.58	1.46	2.29	−.83	13.23	17.64	−4.41
2055....	11.80	15.75	−3.95	1.46	2.32	−.86	13.26	18.07	−4.81
2060....	11.83	16.19	−4.35	1.46	2.29	−.83	13.30	18.48	−5.18
2065....	11.86	16.49	−4.64	1.46	2.28	−.81	13.32	18.77	−5.45
2070....	11.87	16.71	−4.84	1.46	2.29	−.83	13.34	19.00	−5.67

TABLE II.F13.—COMPARISON OF ESTIMATED INCOME RATES AND COST RATES BY TRUST FUND AND ALTERNATIVE, CALENDAR YEARS 1994-2070 (Cont.)

[As a percentage of taxable payroll]

Calendar year	OASI			DI			Combined		
	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance
Low Cost:									
1994....	11.41	10.13	1.28	1.21	1.36	−0.15	12.62	11.50	1.13
1995....	11.37	9.96	1.41	1.21	1.38	−.17	12.58	11.34	1.24
1996....	11.41	9.79	1.62	1.21	1.39	−.18	12.62	11.18	1.44
1997....	11.41	9.62	1.78	1.21	1.40	−.19	12.62	11.02	1.60
1998....	11.41	9.47	1.94	1.21	1.41	−.20	12.62	10.88	1.74
1999....	11.41	9.33	2.08	1.21	1.42	−.20	12.62	10.75	1.87
2000....	11.19	9.21	1.97	1.43	1.42	.01	12.62	10.64	1.98
2001....	11.18	9.11	2.07	1.43	1.43	(1)	12.62	10.54	2.07
2002....	11.18	9.03	2.16	1.43	1.44	−.01	12.62	10.47	2.15
2003....	11.18	8.94	2.24	1.43	1.46	−.03	12.62	10.40	2.21
2005....	11.20	8.81	2.39	1.43	1.47	−.04	12.64	10.29	2.35
2010....	11.26	8.84	2.42	1.44	1.50	−.06	12.70	10.34	2.36
2015....	11.34	9.67	1.66	1.44	1.51	−.07	12.78	11.18	1.59
2020....	11.41	10.83	.58	1.44	1.49	−.05	12.85	12.33	.53
2025....	11.48	11.75	−.27	1.44	1.50	−.06	12.92	13.26	−.33
2030....	11.53	12.20	−.68	1.44	1.46	−.02	12.97	13.67	−.70
2035....	11.55	12.16	−.61	1.44	1.41	.03	12.99	13.57	−.58
2040....	11.55	11.75	−.20	1.44	1.39	.06	12.99	13.13	−.14
2045....	11.54	11.38	.16	1.45	1.41	.03	12.99	12.79	.20
2050....	11.55	11.21	.33	1.45	1.42	.03	12.99	12.63	.36
2055....	11.56	11.21	.34	1.45	1.41	.03	13.00	12.62	.38
2060....	11.56	11.22	.34	1.45	1.39	.06	13.01	12.61	.40
2065....	11.57	11.16	.40	1.45	1.38	.07	13.01	12.54	.47
2070....	11.57	11.11	.46	1.45	1.38	.07	13.02	12.49	.52
High Cost:									
1994....	11.42	10.30	1.12	1.21	1.44	−.22	12.63	11.73	.89
1995....	11.44	10.56	.87	1.21	1.57	−.36	12.65	12.13	.52
1996....	11.43	10.56	.87	1.21	1.66	−.45	12.64	12.22	.42
1997....	11.43	10.63	.80	1.21	1.75	−.54	12.64	12.38	.27
1998....	11.44	11.11	.34	1.22	1.93	−.71	12.66	13.03	−.37
1999....	11.45	11.19	.26	1.22	2.03	−.82	12.67	13.22	−.56
2000....	11.23	11.18	.05	1.44	2.12	−.68	12.67	13.30	−.63
2001....	11.23	11.21	.02	1.44	2.20	−.77	12.67	13.42	−.75
2002....	11.23	11.28	−.04	1.44	2.29	−.85	12.67	13.56	−.89
2003....	11.24	11.33	−.10	1.44	2.37	−.93	12.68	13.70	−1.02
2005....	11.27	11.32	−.04	1.44	2.45	−1.01	12.72	13.77	−1.05
2010....	11.37	11.57	−.21	1.45	2.58	−1.13	12.82	14.15	−1.34
2015....	11.48	12.72	−1.24	1.46	2.62	−1.17	12.93	15.34	−2.41
2020....	11.59	14.50	−2.90	1.46	2.71	−1.25	13.05	17.20	−4.15
2025....	11.71	16.26	−4.55	1.47	2.83	−1.37	13.18	19.09	−5.91
2030....	11.82	17.74	−5.92	1.47	2.85	−1.38	13.28	20.59	−7.31
2035....	11.90	18.76	−6.86	1.47	2.83	−1.36	13.37	21.59	−8.23
2040....	11.95	19.31	−7.37	1.47	2.89	−1.42	13.42	22.20	−8.78
2045....	12.00	19.88	−7.88	1.48	3.07	−1.60	13.47	22.95	−9.48
2050....	12.06	20.78	−8.72	1.48	3.20	−1.72	13.54	23.98	−10.44
2055....	12.14	22.01	−9.87	1.48	3.29	−1.81	13.62	25.30	−11.68
2060....	12.22	23.34	−11.12	1.48	3.27	−1.79	13.70	26.61	−12.91
2065....	12.29	24.47	−12.18	1.48	3.25	−1.77	13.77	27.72	−13.95
2070....	12.35	25.45	−13.10	1.48	3.28	−1.79	13.83	28.72	−14.89

[1]Negligible, i.e., between −0.005 and 0.005 percent of taxable payroll.

Notes:

1. The income rate excludes interest income and certain transfers from the general fund of the Treasury.
2. Totals do not necessarily equal the sums of rounded components.

Summarized values for the full 75-year period are useful in analyzing the long-range financial condition of the program under present law and the long-range financial effects of proposed modifications to the law. In order to focus on the full 75-year period as well as on broad patterns through the period, table II.F14 summarizes, on a present-value basis, the projected annual figures presented in the previous table for various periods within the overall 75-year projection period.

Table II.F14 first shows rates on a present-value basis summarized for each of the 25-year subperiods, excluding both the funds on hand at the beginning of the period and the cost of reaching a trust fund target by the end of the period. These rates are useful for comparing the cash flows of tax income and expenditures, as an indicator of the degree to which tax income during the period is sufficient to meet the outgo estimated for the period.

The table also shows summarized rates including the funds on hand at the start of the period and the cost of reaching a target trust fund balance equal to 100 percent of annual expenditures by the end of the period, for valuation periods of the first 25 years, the first 50 years, and the entire 75-year period. Therefore, the actuarial balance for each of these three valuation periods is equal to the difference between the summarized income rate and cost rate for the corresponding period. A balance of zero for any period on this basis would indicate that estimated outgo for the period could be met, on the average, with a remaining trust fund balance at the end of the period equal to 100 percent of the following year's outgo.

The values in table II.F14 show that the combined OASDI program is expected to operate with a positive balance over shorter valuation periods under alternatives I and II. For the first-25-year valuation period the summarizing values indicate balances of 2.03 percent of taxable payroll under alternative I, 0.50 percent under alternative II, and –1.06 percent under alternative III. Thus, the program is more than adequately financed for the next 25-year valuation period under all but the high cost alternative III projections. Over the 50-year valuation period, 1994-2043, the OASDI program would have a positive balance of 1.05 percent under alternative I but would have deficits of 1.29 percent under alternative II and 3.67 percent under alternative III. Thus, the program is more than adequately financed

for the next 50-year valuation period under only the low cost set of assumptions, alternative I.

For the entire 75-year valuation period, the combined OASDI program would again have actuarial deficits except for the low cost set of assumptions, alternative I. The actuarial balance for this long-range valuation period is projected to be 0.90 percent of taxable payroll under alternative I, –2.13 percent under alternative II, and –5.57 percent under alternative III.

TABLE II.F14.—COMPARISON OF SUMMARIZED INCOME RATES AND COST RATES BY TRUST FUND AND ALTERNATIVE, CALENDAR YEARS 1994-2068

[As a percentage of taxable payroll]

Calendar year period	OASI			DI			Combined		
	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance
Intermediate:									
25-year subperiods:[1]									
1994-2018 . . .	11.32	10.45	0.87	1.38	1.86	–0.48	12.70	12.32	0.39
2019-2043 . . .	11.64	14.60	–2.96	1.45	2.18	–.73	13.10	16.78	–3.69
2044-2068 . . .	11.80	15.85	–4.05	1.46	2.29	–.83	13.26	18.14	–4.88
Valuation periods:[2]									
25-years:									
1994-2018 .	11.96	10.91	1.05	1.40	1.94	–.55	13.35	12.85	.50
50-years:									
1994-2043 .	11.82	12.49	–.68	1.42	2.04	–.61	13.24	14.53	–1.29
75-years:									
1994-2068 .	11.81	13.28	–1.46	1.43	2.09	–.66	13.24	15.37	–2.13
Low Cost:									
25-year subperiods:[1]									
1994-2018 . . .	11.28	9.34	1.94	1.38	1.46	–.09	12.66	10.80	1.86
2019-2043 . . .	11.50	11.78	–.28	1.44	1.46	–.01	12.94	13.24	–.29
2044-2068 . . .	11.55	11.26	.29	1.45	1.40	.04	13.00	12.66	.33
Valuation periods:[2]									
25-years:									
1994-2018 .	11.88	9.73	2.15	1.39	1.52	–.13	13.27	11.25	2.03
50-years:									
1994-2043 .	11.71	10.60	1.12	1.41	1.48	–.07	13.13	12.08	1.05
75-years:									
1994-2068 .	11.67	10.73	.94	1.42	1.46	–.04	13.09	12.19	.90
High Cost:									
25-year subperiods:[1]									
1994-2018 . . .	11.36	11.58	–.22	1.38	2.29	–.91	12.75	13.87	–1.13
2019-2043 . . .	11.79	17.45	–5.65	1.47	2.84	–1.37	13.26	20.29	–7.03
2044-2068 . . .	12.14	22.20	–10.06	1.48	3.23	–1.75	13.62	25.42	–11.80
Valuation periods:[2]									
25-years:									
1994-2018 .	12.03	12.10	–.07	1.40	2.39	–.99	13.43	14.49	–1.06
50-years:									
1994-2043 .	11.92	14.45	–2.52	1.43	2.58	–1.15	13.35	17.03	–3.67
75-years:									
1994-2068 .	11.98	16.27	–4.29	1.44	2.72	–1.28	13.42	18.99	–5.57

[1]Income rates do not include beginning trust fund balances and cost rates do not include the cost of reaching ending fund targets.

[2]Income rates include beginning trust fund balances and cost rates include the cost of reaching an ending fund target equal to 100 percent of annual expenditures by the end of the period.

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

Also of interest are the long-range financial conditions of the separate OASI and DI programs. As may be concluded from tables II.F13 and II.F14, the DI program is in very poor financial condition. The DI program has estimated deficits for every period shown under alternatives I, II, and III. The OASI program also has long-range deficits, but they occur later in the long-range period and they are smaller, relative to program costs.

Annual net cash flow under alternative II, as represented by the balances in table II.F13, remains positive for 22 years for the OASI program, but is negative in every year for DI, by increasingly large amounts. The relatively less-adequate financing for DI is evident as well in the estimates based on alternatives I and III.

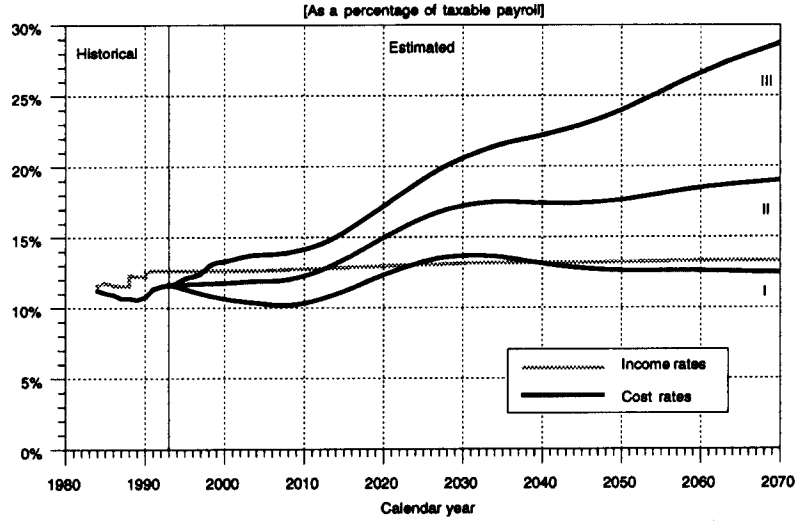
Figure II.F3 shows in graphical form the patterns of the OASDI annual income rates and cost rates. The income rates are shown only for alternative II in order to simplify the graphical presentation and because, as shown in table II.F13, the variation in the income rates by alternative is very small. The OASDI long-range summarized income rates for alternatives I and III, for the 75-year valuation period, differ by only about 0.3 percent of taxable payroll. By 2070, the annual income rates under alternatives I and III differ by only about 0.8 percent of taxable payroll. Only small fluctuations are projected in the income rate, as the rate of income from taxation of benefits varies only slightly, for each alternative, reflecting changes in the cost rate and the fact that benefit-taxation threshold amounts are not indexed.

The patterns of the annual balances are indicated in figure II.F3. For each alternative, the magnitude of each of the positive balances in the early years, as a percent of taxable payroll, is represented by the distance between the appropriate cost-rate curve and the income-rate curve above it. The magnitude of each of the deficits in subsequent years is represented by the distance between the appropriate cost-rate curve and the income-rate curve below it.

In the future, the cost of the OASDI program, as a percent of taxable payroll, will not necessarily be within the range encompassed by alternatives I and III. Nonetheless, because alternatives I and III define a reasonably wide range of economic and demographic con-

ditions, the resulting estimates delineate a reasonable range for future program costs.

FIGURE II.F3.—ESTIMATED OASDI INCOME RATES AND COST RATES BY ALTERNATIVE, CALENDAR YEARS 1984-2070



Actuarial Analysis

Two tests of the financial status of the OASI, DI, and combined OASDI programs are presented in this report. The test of long-range close actuarial balance incorporates a graduated tolerance scale which allows larger actuarial deficits for longer valuation periods, reflecting the greater uncertainty inherent in the estimates for later years. The other test, the short-range test of the financial adequacy of the program, was discussed earlier in this section.

Table II.F15 presents a comparison of the estimated actuarial balances with the minimum allowable balance (or maximum allowable deficit) under the long-range test, each expressed as a percentage of the summarized cost rate, based on the intermediate alternative II estimates. Values are shown for only 14 of the valuation periods: those of length 10 years, 15 years, and continuing in 5-year increments through 75 years. However, each of the 66 periods—those of length 10 years, 11 years, and continuing in 1-year increments through 75 years—is considered for the test. These minimum allowable balances are calculated to show the limit for each valuation period resulting from the graduated tolerance scale. The patterns in the estimated balances as a percentage of the summarized cost rates as well as that for the minimum allowable balance are presented graphically in figure II.F4, for the OASI, DI and combined OASDI programs. Values shown for the 25-year, 50-year, and 75-year valuation periods correspond to those presented in table II.F14.

As discussed earlier, a program is found not to be in long-range close actuarial balance if, for any of the valuation periods ending with the 10th through 75th years of the projection period, the estimated actuarial balance is less than the minimum allowable balance. The minimum allowable balance as a percentage of the summarized cost rate is –5.0 percent for the full 75-year long-range period and is reduced uniformly for shorter valuation periods, reaching zero for the 10-year valuation period.

For the OASI program, the estimated actuarial balance as a percentage of the summarized cost rate exceeds the minimum allowable for valuation periods of length 10 years through 42 years, under the intermediate alternative II estimates. For valuation periods of length greater than 42 years, the estimated actuarial balance is less than the minimum allowable. For the full 75-year long-range period the estimated actuarial balance reaches –11.03 percent of the summarized cost rate, for a shortfall of over 6 percent, from the minimum

allowable balance of –5.0 percent of the summarized cost rate. Thus, although the OASI program satisfies the short-range test of financial adequacy (as discussed earlier in this section), it is not in long-range close actuarial balance.

For the DI program, the estimated actuarial balance as a percentage of the summarized cost rate is less than the minimum allowable balance for each of the 66 separate valuation periods. The shortfall from the minimum allowable balance rises from 26.6 percent of the summarized cost rate for the 10-year valuation period to 27.6 percent of the summarized cost rate for the 36-year valuation period, thereafter declining to a level of 26.6 percent of the summarized cost rate for the full long-range period. Thus, the DI program is out of long-range close actuarial balance, in addition to the fact that it does not satisfy the short-range test of financial adequacy (as discussed earlier in this section).

For the combined OASDI program, the estimated actuarial balance as a percentage of the summarized cost rate exceeds the minimum allowable balance for valuation periods of length 10 years through 33 years. For valuation periods of length greater than 33 years, the estimated actuarial balance is below the minimum allowable balance. The size of the shortfall from the minimum allowable balance rises gradually reaching 8.8 percent of the summarized cost rate for the full 75-year long-range valuation period. Thus, although the OASDI program satisfies the short-range test of financial adequacy (as discussed earlier in this section), it is out of long-range close actuarial balance.

The OASI and DI programs, both separate and combined, were also found to be out of close actuarial balance in the 1993 Annual Report. However, estimated deficits for the combined OASDI program in this program are significantly greater than those shown in the 1993 report. The estimated deficits also begin earlier in this report. For both the OASI and DI programs, considered separately, the size of the estimated deficits, and therefore the degree to which the program is found to be out of close actuarial balance, is greater based on the estimates presented in this report.

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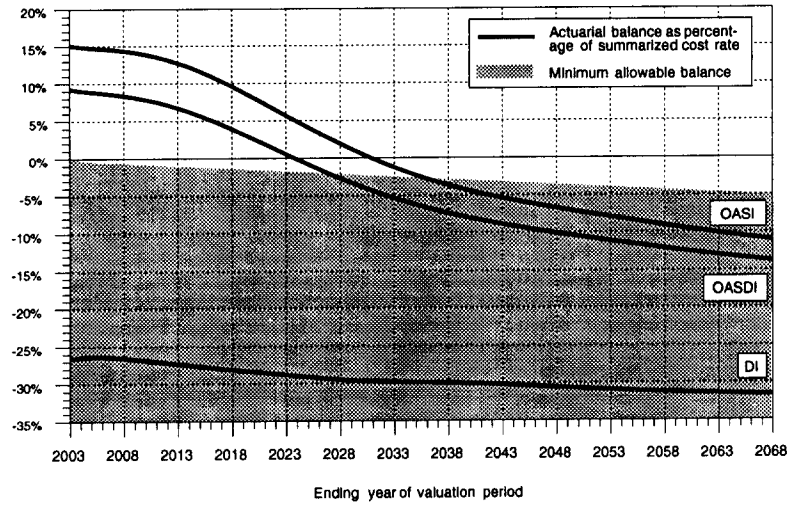
TABLE II.F15.—COMPARISON OF ESTIMATED LONG-RANGE ACTUARIAL BALANCES WITH THE MINIMUM ALLOWABLE FOR THE TEST FOR CLOSE ACTUARIAL BALANCE BY TRUST FUND, BASED ON INTERMEDIATE ESTIMATES

Valuation period	Rates (percentage of taxable payroll)			Balance as a percentage of cost rate	
	Summarized income rate	Summarized cost rate	Balance	Balance	Minimum allowable balance
OASI:					
10 years: 1994-2003	12.80	11.12	1.68	15.11	0.00
15 years: 1994-2008	12.31	10.76	1.55	14.38	–.38
20 years: 1994-2013	12.08	10.71	1.37	12.76	–.77
25 years: 1994-2018	11.96	10.91	1.05	9.59	–1.15
30 years: 1994-2023	11.89	11.25	.64	5.67	–1.54
35 years: 1994-2028	11.86	11.64	.22	1.90	–1.92
40 years: 1994-2033	11.84	11.99	–.15	–1.28	–2.31
45 years: 1994-2038	11.83	12.28	–.45	–3.67	–2.69
50 years: 1994-2043	11.82	12.49	–.68	–5.41	–3.08
55 years: 1994-2048	11.81	12.67	–.86	–6.76	–3.46
60 years: 1994-2053	11.81	12.83	–1.02	–7.94	–3.85
65 years: 1994-2058	11.81	12.99	–1.18	–9.06	–4.23
70 years: 1994-2063	11.81	13.14	–1.33	–10.09	–4.62
75 years: 1994-2068	11.81	13.28	–1.46	–11.03	–5.00
DI:					
10 years: 1994-2003	1.33	1.81	–.48	–26.64	.00
15 years: 1994-2008	1.36	1.86	–.49	–26.53	–.38
20 years: 1994-2013	1.38	1.90	–.52	–27.34	–.77
25 years: 1994-2018	1.40	1.94	–.55	–28.11	–1.15
30 years: 1994-2023	1.40	1.97	–.57	–28.81	–1.54
35 years: 1994-2028	1.41	2.00	–.59	–29.50	–1.92
40 years: 1994-2033	1.41	2.01	–.60	–29.80	–2.31
45 years: 1994-2038	1.42	2.02	–.61	–29.96	–2.69
50 years: 1994-2043	1.42	2.04	–.61	–30.19	–3.08
55 years: 1994-2048	1.42	2.05	–.63	–30.54	–3.46
60 years: 1994-2053	1.43	2.06	–.64	–30.90	–3.85
65 years: 1994-2058	1.43	2.08	–.65	–31.20	–4.23
70 years: 1994-2063	1.43	2.08	–.65	–31.41	–4.62
75 years: 1994-2068	1.43	2.09	–.66	–31.59	–5.00
OASDI:					
10 years: 1994-2003	14.13	12.94	1.20	9.25	.00
15 years: 1994-2008	13.67	12.62	1.05	8.36	–.38
20 years: 1994-2013	13.46	12.61	.85	6.71	–.77
25 years: 1994-2018	13.35	12.85	.50	3.90	–1.15
30 years: 1994-2023	13.29	13.22	.07	.53	–1.54
35 years: 1994-2028	13.27	13.64	–.37	–2.71	–1.92
40 years: 1994-2033	13.25	14.01	–.75	–5.39	–2.31
45 years: 1994-2038	13.24	14.30	–1.06	–7.40	–2.69
50 years: 1994-2043	13.24	14.53	–1.29	–8.88	–3.08
55 years: 1994-2048	13.24	14.72	–1.48	–10.07	–3.46
60 years: 1994-2053	13.24	14.89	–1.66	–11.12	–3.85
65 years: 1994-2058	13.24	15.06	–1.82	–12.11	–4.23
70 years: 1994-2063	13.24	15.22	–1.98	–13.01	–4.62
75 years: 1994-2068	13.24	15.37	–2.13	–13.83	–5.00

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

FIGURE II.F4.—COMPARISON OF ESTIMATED LONG-RANGE ACTUARIAL BALANCES WITH THE MINIMUM ALLOWABLE FOR CLOSE ACTUARIAL BALANCE, ALTERNATIVE II BY TRUST FUND



Annual income rates and their components are shown in table II.F16, for each alternative set of assumptions. The annual income rates reflect the scheduled payroll tax rates and the projected rates of income from the taxation of benefits, which reflect changes in the cost rates and the fact that benefit-taxation threshold amounts are not indexed.

Summarized values for the annual income and cost rates, along with their components, are presented in table II.F17 for 25-year, 50-year, and 75-year valuation periods. Summarized income rates include the starting trust fund balance in addition to the components included in the annual income rates. The summarized cost rates include the cost of reaching and maintaining an ending trust fund target of 100 percent of annual expenditures by the end of the period in addition to the expenditures included in the annual cost rates. Thus, the total summarized rates shown in table II.F17 are the same as the summarized income and cost rates shown in table II.F14 for the 25-year, 50-year, and 75-year valuation periods.

It may be noted that the payroll tax income expressed as a percentage of taxable payroll is slightly smaller than the actual tax rates in effect for each period. This results from the fact that all OASDI

income and outgo amounts presented in this report are computed on a cash basis, i.e., amounts are attributed to the year in which they are actually received by, or expended from, the fund, while taxable payroll is allocated to the year in which earnings are paid. Because earnings are paid to workers before the corresponding payroll taxes are credited to the funds, payroll tax income for a particular year reflects a combination of the taxable payrolls from that year and from prior years, when payroll was smaller. Dividing payroll tax income by taxable payroll for a particular year, or period of years, will thus generally result in an income rate that is slightly less than the applicable tax rate for the period.

TABLE II.F16.—COMPONENTS OF ANNUAL INCOME RATES BY TRUST FUND AND ALTERNATIVE, CALENDAR YEARS 1994-2070

[As a percentage of taxable payroll]

	OASI			DI			Combined		
Calendar year	Payroll tax	Taxation of benefits	Total	Payroll tax	Taxation of benefits	Total	Payroll tax	Taxation of benefits	Total
Intermediate:									
1994	11.20	0.22	11.42	1.20	0.01	1.21	12.40	0.23	12.63
1995	11.20	.19	11.39	1.20	.01	1.21	12.40	.20	12.60
1996	11.20	.22	11.42	1.20	.01	1.21	12.40	.23	12.63
1997	11.20	.22	11.42	1.20	.01	1.21	12.40	.23	12.63
1998	11.20	.22	11.42	1.20	.01	1.21	12.40	.24	12.64
1999	11.20	.22	11.42	1.20	.01	1.21	12.40	.24	12.64
2000	10.98	.22	11.20	1.42	.01	1.43	12.40	.24	12.64
2001	10.98	.23	11.21	1.42	.01	1.43	12.40	.24	12.64
2002	10.98	.23	11.21	1.42	.02	1.44	12.40	.24	12.64
2003	10.98	.23	11.21	1.42	.02	1.44	12.40	.24	12.64
2005	10.98	.25	11.23	1.42	.02	1.44	12.40	.27	12.67
2010	10.98	.33	11.31	1.42	.02	1.44	12.40	.35	12.75
2015	10.98	.42	11.40	1.42	.03	1.45	12.40	.45	12.85
2020	10.98	.52	11.50	1.42	.03	1.45	12.40	.56	12.96
2025	10.98	.62	11.60	1.42	.03	1.45	12.40	.65	13.05
2030	10.98	.69	11.67	1.42	.04	1.46	12.40	.73	13.13
2035	10.98	.73	11.71	1.42	.04	1.46	12.40	.77	13.17
2040	10.98	.75	11.73	1.42	.04	1.46	12.40	.79	13.19
2045	10.98	.76	11.74	1.42	.04	1.46	12.40	.80	13.20
2050	10.98	.79	11.77	1.42	.04	1.46	12.40	.83	13.23
2055	10.98	.82	11.80	1.42	.04	1.46	12.40	.86	13.26
2060	10.98	.85	11.83	1.42	.04	1.46	12.40	.90	13.30
2065	10.98	.88	11.86	1.42	.04	1.46	12.40	.92	13.32
2070	10.98	.89	11.87	1.42	.04	1.46	12.40	.94	13.34

TABLE II.F16.—COMPONENTS OF ANNUAL INCOME RATES BY TRUST FUND AND ALTERNATIVE, CALENDAR YEARS 1994-2070 (Cont.)

[As a percentage of taxable payroll]

Calendar year	OASI			DI			Combined		
	Payroll tax	Taxation of benefits	Total	Payroll tax	Taxation of benefits	Total	Payroll tax	Taxation of benefits	Total
Low Cost:									
1994	11.20	0.21	11.41	1.20	0.01	1.21	12.40	0.22	12.62
1995	11.20	.17	11.37	1.20	.01	1.21	12.40	.18	12.58
1996	11.20	.21	11.41	1.20	.01	1.21	12.40	.22	12.62
1997	11.20	.21	11.41	1.20	.01	1.21	12.40	.22	12.62
1998	11.20	.21	11.41	1.20	.01	1.21	12.40	.22	12.62
1999	11.20	.21	11.41	1.20	.01	1.21	12.40	.22	12.62
2000	10.98	.21	11.19	1.42	.01	1.43	12.40	.22	12.62
2001	10.98	.20	11.18	1.42	.01	1.43	12.40	.22	12.62
2002	10.98	.20	11.18	1.42	.01	1.43	12.40	.22	12.62
2003	10.98	.20	11.18	1.42	.01	1.43	12.40	.22	12.62
2005	10.98	.22	11.20	1.42	.01	1.43	12.40	.24	12.64
2010	10.98	.28	11.26	1.42	.02	1.44	12.40	.30	12.70
2015	10.98	.36	11.34	1.42	.02	1.44	12.40	.38	12.78
2020	10.98	.43	11.41	1.42	.02	1.44	12.40	.45	12.85
2025	10.98	.50	11.48	1.42	.02	1.44	12.40	.52	12.92
2030	10.98	.55	11.53	1.42	.02	1.44	12.40	.57	12.97
2035	10.98	.57	11.55	1.42	.02	1.44	12.40	.59	12.99
2040	10.98	.57	11.55	1.42	.02	1.44	12.40	.59	12.99
2045	10.98	.56	11.54	1.42	.03	1.45	12.40	.59	12.99
2050	10.98	.57	11.55	1.42	.03	1.45	12.40	.59	12.99
2055	10.98	.58	11.56	1.42	.03	1.45	12.40	.60	13.00
2060	10.98	.58	11.56	1.42	.03	1.45	12.40	.61	13.01
2065	10.98	.59	11.57	1.42	.03	1.45	12.40	.61	13.01
2070	10.98	.59	11.57	1.42	.03	1.45	12.40	.62	13.02
High Cost:									
1994	11.20	.22	11.42	1.20	.01	1.21	12.40	.23	12.63
1995	11.20	.24	11.44	1.20	.01	1.21	12.40	.25	12.65
1996	11.20	.23	11.43	1.20	.01	1.21	12.40	.24	12.64
1997	11.20	.23	11.43	1.20	.01	1.21	12.40	.24	12.64
1998	11.20	.24	11.44	1.20	.02	1.22	12.40	.26	12.66
1999	11.20	.25	11.45	1.20	.02	1.22	12.40	.27	12.67
2000	10.98	.25	11.23	1.42	.02	1.44	12.40	.27	12.67
2001	10.98	.25	11.23	1.42	.02	1.44	12.40	.27	12.67
2002	10.98	.25	11.23	1.42	.02	1.44	12.40	.27	12.67
2003	10.98	.26	11.24	1.42	.02	1.44	12.40	.28	12.68
2005	10.98	.29	11.27	1.42	.02	1.44	12.40	.32	12.72
2010	10.98	.39	11.37	1.42	.03	1.45	12.40	.42	12.82
2015	10.98	.50	11.48	1.42	.04	1.46	12.40	.53	12.93
2020	10.98	.61	11.59	1.42	.04	1.46	12.40	.65	13.05
2025	10.98	.73	11.71	1.42	.05	1.47	12.40	.78	13.18
2030	10.98	.84	11.82	1.42	.05	1.47	12.40	.88	13.28
2035	10.98	.92	11.90	1.42	.05	1.47	12.40	.97	13.37
2040	10.98	.97	11.95	1.42	.05	1.47	12.40	1.02	13.42
2045	10.98	1.02	12.00	1.42	.06	1.48	12.40	1.07	13.47
2050	10.98	1.08	12.06	1.42	.06	1.48	12.40	1.14	13.54
2055	10.98	1.16	12.14	1.42	.06	1.48	12.40	1.22	13.62
2060	10.98	1.24	12.22	1.42	.06	1.48	12.40	1.30	13.70
2065	10.98	1.31	12.29	1.42	.06	1.48	12.40	1.37	13.77
2070	10.98	1.37	12.35	1.42	.06	1.48	12.40	1.43	13.83

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

TABLE II.F17.—COMPONENTS OF SUMMARIZED INCOME RATES AND COST RATES BY TRUST FUND AND ALTERNATIVE, CALENDAR YEARS 1994-2068

[As a percentage of taxable payroll]

Valuation period	Income rate				Cost rate		
	Payroll tax	Taxation of benefits	Beginning fund balance	Total	Disburse-ments	Ending fund target	Total
OASI:							
Intermediate:							
1994-2018	11.03	0.30	0.63	11.96	10.45	0.46	10.91
1994-2043	11.00	.46	.36	11.82	12.26	.23	12.49
1994-2068	11.00	.55	.27	11.81	13.14	.14	13.28
Low Cost:							
1994-2018	11.02	.26	.60	11.88	9.34	.39	9.73
1994-2043	11.00	.38	.34	11.71	10.41	.18	10.60
1994-2068	11.00	.43	.25	11.67	10.63	.10	10.73
High Cost:							
1994-2018	11.03	.34	.66	12.03	11.58	.52	12.10
1994-2043	11.00	.55	.37	11.92	14.14	.30	14.45
1994-2068	11.00	.69	.28	11.98	16.06	.20	16.27
DI:							
Intermediate:							
1994-2018	1.36	.02	.02	1.40	1.86	.08	1.94
1994-2043	1.39	.03	.01	1.42	2.00	.03	2.04
1994-2068	1.39	.03	.01	1.43	2.07	.02	2.09
Low Cost:							
1994-2018	1.36	.01	.01	1.39	1.46	.05	1.52
1994-2043	1.39	.02	.01	1.41	1.46	.02	1.48
1994-2068	1.40	.02	.01	1.42	1.45	.01	1.46
High Cost:							
1994-2018	1.36	.02	.02	1.40	2.29	.10	2.39
1994-2043	1.39	.03	.01	1.43	2.53	.05	2.58
1994-2068	1.39	.04	.01	1.44	2.70	.03	2.72
OASDI:							
Intermediate:							
1994-2018	12.39	.31	.65	13.35	12.32	.53	12.85
1994-2043	12.39	.48	.37	13.24	14.26	.27	14.53
1994-2068	12.39	.58	.28	13.24	15.21	.16	15.37
Low Cost:							
1994-2018	12.39	.27	.61	13.27	10.80	.44	11.25
1994-2043	12.39	.39	.34	13.13	11.87	.21	12.08
1994-2068	12.39	.45	.26	13.09	12.08	.12	12.19
High Cost:							
1994-2018	12.39	.36	.68	13.43	13.87	.62	14.49
1994-2043	12.39	.58	.38	13.35	16.68	.35	17.03
1994-2068	12.39	.74	.29	13.42	18.76	.23	18.99

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

The primary reason that the estimated OASDI cost rate increases rapidly after 2010 is that the number of beneficiaries is projected to increase more rapidly than the number of covered workers. This occurs because the relatively large number of persons born during the period of high fertility rates from the end of World War II through the mid-1960s will reach retirement age, and begin to receive benefits, while the relatively small number of persons born during the subsequent period of low fertility rates will comprise the labor force. A comparison of the numbers of covered workers and beneficiaries is shown in table II.F18.

TABLE II.F18.—COMPARISON OF OASDI COVERED WORKERS AND BENEFICIARIES BY ALTERNATIVE, CALENDAR YEARS 1945-2070

Calendar year	Covered workers[1] (in thousands)	Beneficiaries[2] (in thousands)			Covered workers per OASDI beneficiary	Beneficiaries per 100 covered workers
		OASI	DI	OASDI		
Historical data:						
1945	46,390	1,106	—	1,106	41.9	2
1950	48,280	2,930	—	2,930	16.5	6
1955	65,200	7,563	—	7,563	8.6	12
1960	72,530	13,740	522	14,262	5.1	20
1965	80,680	18,509	1,648	20,158	4.0	25
1970	93,090	22,618	2,568	25,186	3.7	27
1975	100,200	26,998	4,125	31,123	3.2	31
1980	112,212	30,385	4,734	35,119	3.2	31
1985	119,481	32,776	3,874	36,650	3.3	31
1986	121,962	33,349	3,972	37,321	3.3	31
1987	125,028	33,918	4,035	37,953	3.3	30
1988	129,121	34,343	4,077	38,420	3.4	30
1989	131,687	34,754	4,105	38,859	3.4	30
1990	132,548	35,266	4,204	39,470	3.4	30
1991	[3]131,774	35,795	4,388	40,173	3.3	30
1992	[3]132,467	36,314	4,716	41,030	3.2	31
1993	[3]135,209	36,758	5,083	41,841	3.2	31
Intermediate:						
1994	137,178	37,213	5,456	42,669	3.2	31
1995	139,068	37,654	5,830	43,484	3.2	31
2000	146,543	39,418	7,471	46,889	3.1	32
2005	152,642	41,379	8,844	50,223	3.0	33
2010	157,424	44,689	9,812	54,502	2.9	35
2015	159,944	50,489	10,214	60,703	2.6	38
2020	160,999	57,728	10,321	68,049	2.4	42
2025	161,726	64,574	10,570	75,144	2.2	46
2030	162,821	69,822	10,520	80,342	2.0	49
2035	164,443	72,991	10,398	83,389	2.0	51
2040	166,017	73,949	10,473	84,421	2.0	51
2045	167,063	74,595	10,885	85,480	2.0	51
2050	167,661	75,840	11,120	86,961	1.9	52
2055	168,087	77,956	11,274	89,230	1.9	53
2060	168,576	80,188	11,198	91,386	1.8	54
2065	169,091	81,917	11,187	93,104	1.8	55
2070	169,607	83,314	11,279	94,593	1.8	56

TABLE II.F18.—COMPARISON OF OASDI COVERED WORKERS AND BENEFICIARIES BY ALTERNATIVE, CALENDAR YEARS 1945-2070 (Cont.)

Calendar year	Covered workers[1] (in thousands)	Beneficiaries[2] (in thousands) OASI	DI	OASDI	Covered workers per OASDI beneficiary	Beneficiaries per 100 covered workers
Low Cost:						
1994	137,876	37,208	5,412	42,620	3.2	31
1995	140,534	37,634	5,691	43,325	3.2	31
2000	150,723	39,185	6,738	45,923	3.3	30
2005	157,874	40,846	7,927	48,773	3.2	31
2010	163,256	43,889	8,354	52,243	3.1	32
2015	166,455	49,403	8,438	57,840	2.9	35
2020	169,066	56,281	8,373	64,654	2.6	38
2025	172,126	62,727	8,496	71,223	2.4	41
2030	176,087	67,420	8,439	75,859	2.3	43
2035	181,149	69,988	8,360	78,348	2.3	43
2040	186,640	70,422	8,455	78,877	2.4	42
2045	191,974	70,742	8,826	79,568	2.4	41
2050	197,330	71,759	9,096	80,855	2.4	41
2055	202,981	73,741	9,344	83,085	2.4	41
2060	209,046	75,927	9,477	85,403	2.4	41
2065	215,407	77,897	9,699	87,596	2.5	41
2070	221,769	79,912	10,003	89,916	2.5	41
High Cost:						
1994	136,914	37,220	5,498	42,718	3.2	31
1995	137,206	37,678	5,966	43,644	3.1	32
2000	141,941	39,652	8,420	48,072	3.0	34
2005	147,627	41,949	9,777	51,726	2.9	35
2010	151,773	45,514	11,301	56,816	2.7	37
2015	153,744	51,584	12,028	63,612	2.4	41
2020	153,428	59,204	12,309	71,514	2.1	47
2025	152,348	66,537	12,695	79,232	1.9	52
2030	151,163	72,549	12,667	85,215	1.8	56
2035	149,977	76,663	12,517	89,180	1.7	59
2040	148,374	78,587	12,582	91,169	1.6	61
2045	145,939	80,042	13,037	93,078	1.6	64
2050	142,850	82,010	13,211	95,221	1.5	67
2055	139,356	84,733	13,219	97,952	1.4	70
2060	135,790	87,452	12,839	100,292	1.4	74
2065	132,321	89,338	12,476	101,814	1.3	77
2070	128,887	90,467	12,254	102,720	1.3	80

[1]Workers who are paid at some time during the year for employment on which OASDI taxes are due.

[2]Beneficiaries with monthly benefits in current-payment status as of June 30.

[3]Preliminary.

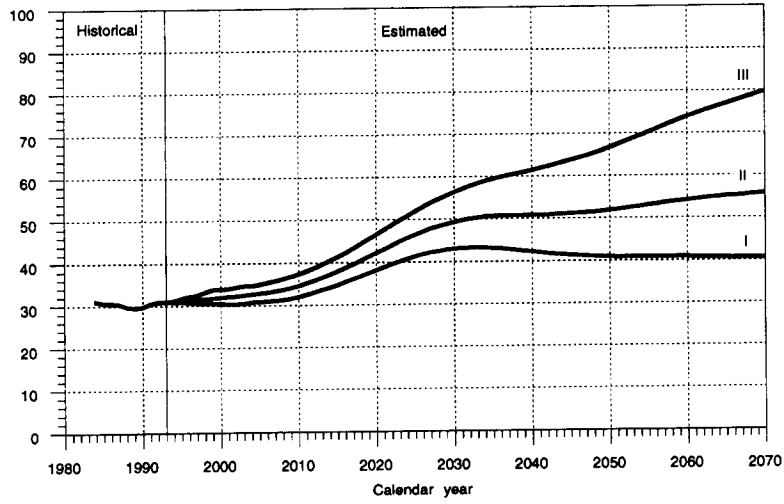
Note: The numbers of beneficiaries do not include certain uninsured persons, most of whom both attained age 72 before 1968 and have fewer than 3 quarters of coverage, in which cases the costs are reimbursed by the general fund of the Treasury. The number of such uninsured persons was 2,958 as of June 30, 1993, and is estimated to be fewer than 500 by the turn of the century. Totals do not necessarily equal the sums of rounded components.

Table II.F18 shows that the number of covered workers per beneficiary, which was about 3.2 in 1993, is estimated to decline in the future. Based on alternative I, for which high fertility rates and small reductions in death rates are assumed, the ratio declines to a level of 2.3 by 2030, and increases slowly thereafter. Based on alternative III, for which low fertility rates and substantial reductions in death rates are assumed, the decline is much greater, reaching 1.3 workers per beneficiary by 2065. Based on alternative II, the ratio declines

to 1.8 workers per beneficiary by 2060, and remains at that level through 2070.

The impact of the demographic shifts under the three alternatives on the OASDI cost rates is better understood by considering the projected number of beneficiaries per 100 workers. As compared to the 1993 level of 31 beneficiaries per 100 covered workers, this ratio is estimated to rise by the year 2070 to significantly higher levels, which are 41 under alternative I, 56 under alternative II, and 80 under alternative III. The significance of these numbers can be seen by comparing figure II.F3 to figure II.F5.

FIGURE II.F5.—RATIOS OF ESTIMATED OASDI BENEFICIARIES PER 100 COVERED WORKERS BY ALTERNATIVE, CALENDAR YEARS 1984-2070



For each alternative, the shape of the curve in figure II.F5, which shows beneficiaries per 100 covered workers, is strikingly similar to that of the corresponding cost-rate curve in figure II.F3, thereby emphasizing the extent to which the cost of the OASDI program is determined by the age patterns of the population. Because the cost rate is basically the product of the number of beneficiaries and their average benefit, divided by the product of the number of covered workers and their average taxable earnings (and because average benefits rise at about the same rate as average earnings), it is to be expected that the pattern of the annual cost rates is similar to that

of the annual ratios of beneficiaries to workers. A graphical presentation of covered workers per beneficiary is shown in section I.G of the Overview.

Table II.F19 shows, by alternative, the estimated trust fund ratios (without regard to advance tax transfers that would be effected after the end of the 10-year, short-range period) for the separate and combined OASI and DI Trust Funds. Also shown in this table is the first year in which a fund is estimated to be exhausted, reflecting the effect of the provision for advance tax transfers. The patterns of the combined fund ratios, over the 75-year period, are shown graphically in figure II.F6, for all three sets of assumptions.

Based on alternative II, the DI trust fund ratio declines from 23 percent at the beginning of 1994 to 8 percent at the beginning of 1995, during which year the fund becomes depleted. The OASI trust fund ratio rises steadily from 129 percent for 1994, reaching a peak of 361 percent at the beginning of 2014. This increase in the OASI trust fund ratio results from the fact that the annual income rate (excluding interest) exceeds annual outgo for several years (see table II.F13). Thereafter, the OASI ratio declines steadily, with the OASI Trust Fund becoming exhausted in 2036.

The trust fund ratio for the hypothetical combined OASI and DI Trust Funds rises from 116 percent for 1994 to a peak of 241 percent at the beginning of 2012. Thereafter, the ratio declines, with the combined funds becoming exhausted in 2029.

The trust fund ratio for the combined OASDI program begins to decline in 2013, the same year in which annual expenditures begin to exceed noninterest income. Although the dollar amount of assets will continue to rise through 2018, because interest income more than offsets the shortfall in noninterest income, revenue from the general fund of the Treasury will be needed in increasingly large amounts, beginning in 2013, to redeem the trust funds' public-debt obligations due to the cash-flow shortfall. This will differ from the experience of recent years when the trust funds have been net lenders to the general fund. The change in the cash flow between the trust funds and the general fund is expected to have important public policy and economic implications that go well beyond the operation

of the OASDI program itself. Discussion of these issues is outside the scope of this report.

Based on alternative I, the trust fund ratio increases virtually throughout the long-range projection period for both the OASI and combined funds, reaching extremely high levels by 2070, of 1,014 and 882 percent, respectively. The DI trust fund ratio declines steadily reaching 11 percent at the beginning of 1995, including advance tax transfers, and becomes exhausted by the end of that year. In contrast, under alternative III, the OASI trust fund ratio is estimated to peak at 180 percent in 2007, thereafter declining to fund exhaustion by the end of 2023. The DI Trust Fund is estimated to decline rapidly, becoming depleted in 1995. The combined trust fund ratio is estimated to rise to a peak of 131 percent in 1998, declining thereafter to fund exhaustion by the end of 2014.

Thus, because of the high ultimate cost rates that are projected under all but the most optimistic assumptions, income will eventually need to be increased and/or program costs will need to be reduced in order to prevent the OASI Trust Fund from becoming exhausted. As already indicated, such action will be needed for the DI Trust Fund even under the more optimistic alternative I assumptions.

Even under the high cost assumptions, however, the combined OASI and DI funds on hand plus their estimated future income would be able to cover their combined expenditures for about 20 years into the future (until 2014). Under the alternative II assumptions the combined starting funds plus estimated future income would be able to cover expenditures for about 35 years into the future (until 2029). The program would be able to cover expenditures for the indefinite future under the more optimistic assumptions in alternative I. In the 1993 report, the combined trust funds were projected to be exhausted in 2017 under alternative III and in 2036 under alternative II.

TABLE II.F19.—ESTIMATED TRUST FUND RATIOS BY TRUST FUND AND ALTERNATIVE, CALENDAR YEARS 1994-2070

[In percent]

Calendar year	Intermediate			Low Cost			High Cost		
	OASI	DI	Combined	OASI	DI	Combined	OASI	DI	Combined
1994	129	23	116	129	23	117	129	22	116
1995	143	8	126	145	11	128	141	6	123
1996	157	(1)	136	163	(1)	142	151	(1)	129
1997	173	(1)	146	183	(1)	158	159	(1)	131
1998	188	(1)	156	205	(1)	175	165	(1)	131
1999	204	(1)	165	230	(1)	194	170	(1)	129
2000	219	(1)	173	256	(1)	214	173	(1)	124
2001	233	(1)	182	281	(1)	236	175	(1)	120
2002	246	(1)	189	309	(1)	259	176	(1)	115
2003	259	(1)	197	337	(1)	282	177	(1)	108
2005	286	(1)	211	397	(1)	331	179	(1)	95
2010	346	(1)	239	546	(1)	456	177	(1)	55
2015	359	(1)	231	634	(1)	534	144	(1)	(1)
2020	316	(1)	180	656	(1)	560	66	(1)	(1)
2025	238	(1)	96	649	(1)	556	(1)	(1)	(1)
2030	139	(1)	(1)	637	(1)	548	(1)	(1)	(1)
2035	28	(1)	(1)	639	(1)	551	(1)	(1)	(1)
2040	(1)	(1)	(1)	671	(1)	578	(1)	(1)	(1)
2045	(1)	(1)	(1)	723	(1)	621	(1)	(1)	(1)
2050	(1)	(1)	(1)	780	(1)	669	(1)	(1)	(1)
2055	(1)	(1)	(1)	832	(1)	716	(1)	(1)	(1)
2060	(1)	(1)	(1)	885	(1)	765	(1)	(1)	(1)
2065	(1)	(1)	(1)	946	(1)	821	(1)	(1)	(1)
2070	(1)	(1)	(1)	1,014	(1)	882	(1)	(1)	(1)
Trust fund is estimated to be exhausted in:	2036	1995	2029	(2)	1995	(2)	2023	1995	2014

[1]The trust fund is estimated to have been exhausted by the beginning of this year. The last line of the table shows the specific year of trust fund exhaustion.

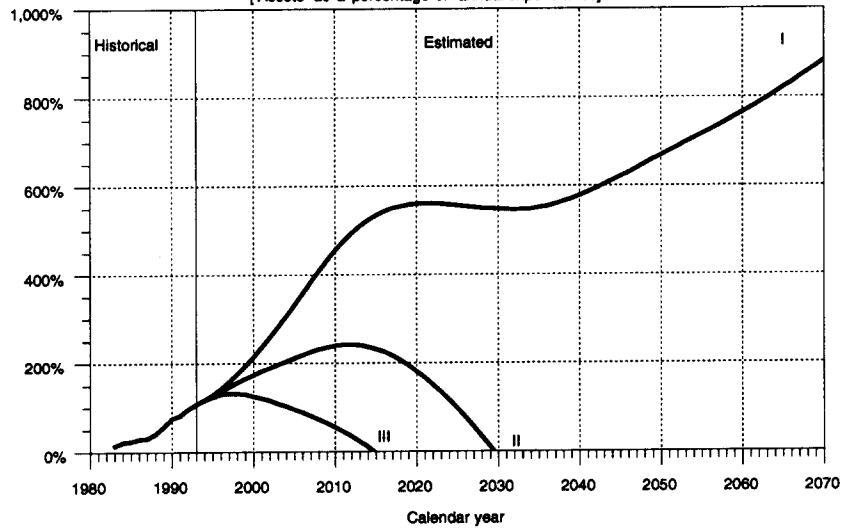
[2]The fund is not estimated to be exhausted within the projection period.

Note: See Glossary for definition of trust fund ratio. The OASDI ratios shown for years after a given fund is estimated to be exhausted are theoretical and are shown for informational purposes only.

A graphic illustration of the trust fund ratios for the combined trust funds is shown in figure II.F6 for each of the alternative sets of assumptions.

FIGURE II.F6.—ESTIMATED TRUST FUND RATIOS, FOR OASI AND DI TRUST FUNDS COMBINED, CALENDAR YEARS 1984-2070

[Assets as a percentage of annual expenditures]



Reasons for changes from last year's report to this report in the long-range actuarial balance under the intermediate assumptions are itemized in table II.F20. Also shown are the estimated effects associated with each reason for change.

TABLE II.F20.—CHANGE IN ACTUARIAL BALANCE ESTIMATED ON THE BASIS OF INTERMEDIATE ESTIMATES BY TRUST FUND AND REASON FOR CHANGE

[As a percentage of taxable payroll]

Item	OASI	DI	Combined
Shown in last year's report:			
Income rate	11.77	1.43	13.21
Cost rate	12.74	1.93	14.67
Actuarial balance	−.97	−.49	−1.46
Changes in actuarial balance due to changes in:			
Valuation period	−.05	−.00	−.05
Demographic assumptions	+.00	−.00	−.00
Economic assumptions	−.17	−.02	−.18
Disability assumptions	−.00	−.11	−.11
Methods	−.27	−.04	−.31
Total change in actuarial balance	−.49	−.17	−.66
Shown in this report:			
Actuarial balance	−1.46	−.66	−2.13
Income rate	11.81	1.43	13.24
Cost rate	13.28	2.09	15.37

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

In changing from the valuation period of last year's report, which was 1993-2067, to the valuation period of this report, 1994-2068, the relatively large negative annual balance for the year 2068 is included. This results in a decrease in the long-range actuarial balance. (Note that the positive balance for 1993 is, in effect, retained because the funds accumulated during the year are included in the income rate and the actuarial balance for this year's report.)

Several demographic assumptions were modified: (1) the starting population was updated to reflect intercensal estimates by the Bureau of the Census, which showed more people at high ages than did earlier estimates; (2) the total fertility rate was decreased slightly for the first 15 projection years reflecting recently observed birth rates in 1992 that were lower than expected; (3) projected mortality rates for males were lowered, reflecting the latest data, which were lower than expected for 1992 and 1993; and (4) net legal immigration was lowered slightly for years through 2000 reflecting the actual level of legal immigration for 1992, which was lower than expected. Each of these modifications results in a decrease in the long-range actuarial balance, the largest of which is due to the updated mortality

rates. In addition, the method for projecting retired worker beneficiaries was modified to better reflect the increasing proportion of other-than-legal aliens in the population. It is presumed that other-than-legal aliens are less likely to receive benefits than are people residing in the United States legally. This change results in a significant increase in the OASDI actuarial balance. The combined effect of these changes on the long-range actuarial balance is insignificant.

Ultimate economic assumptions for interest rates and growth rates in price levels were not changed for this report. However, three changes in economic assumptions did have significant effects on the long-range actuarial balance. First, the ultimate real-wage differential was reduced from 1.1 to 1.0 percent for the intermediate set of assumptions based on a careful reassessment of past data and expectations for the future. Second, projected labor force participation rates were lowered somewhat, reflecting increases in the expected numbers of people who will be receiving disabled worker benefits in the future. Third, data for 1993 indicated a larger than expected drop in the proportion of covered wages that was taxable. This effect, presumably based on higher increases in wages for high paid workers than for low and average wage earners, results in a slightly lower level of taxable payroll throughout the long-range projection period. Other economic assumptions and projected rates of employment were updated to incorporate the latest information and analyses. The net effect of these changes is a decrease in the long-range actuarial balance.

Projections of the number of disabled beneficiaries were increased reflecting recent increases in incidence rates and decreases in termination rates. Overall ultimate disability incidence rates were increased, with increases presumed to be disproportionally at younger ages, consistent with recent experience. The overall rate of termination of disability was reduced, consistent with the relatively larger increase in young disability cases who tend to continue to receive disabled worker benefits longer. These modifications result in a reduction in the long-range actuarial balance for the DI program.

Several significant improvements and updates were made in the methods used to project the cost and income of the OASDI program. Updated sample data for benefits awarded in 1992 were used as the starting point for projecting the level of average benefits for future beneficiaries. The increase in average benefit levels from the previous

sample, for 1988 awards, to the new sample was higher than had been previously projected. Almost 75 percent of the increase in the long-range cost due to changes in methodology results from two factors relating to the updated sample, with each factor having about the same effect on cost. These factors are:

1. New beneficiaries in the 1992 sample had earnings in a higher proportion of their working-age years than had been projected from the earlier sample. Although the difference was small, the higher proportion of years worked has a significant effect when used in projections for all workers in the future.

2. For each new beneficiary, benefits are computed on the basis of an average level of their earnings for a specified number of years. Their highest years of earnings are selected for this average from among all years elapsed after 1950. Two elements affecting this average level of earnings for benefit calculations changed from the 1988 sample to the 1992 sample. First, for new beneficiaries in the 1992 sample, 4 additional years after 1950 were available for selecting the highest years of earnings. For many workers, earnings from one or more of these additional years would be higher than, and would thus replace, some years previously selected from years available for the 1988 sample. This, by itself, has the effect of increasing average earnings and, thus, average benefit levels. Second, however, the specified number of years of highest earnings used for computing benefits was higher, by 3 or 4 years, for new beneficiaries in the 1992 sample. Since each additional year of earnings selected for the average must be lower than all previously selected years, this by itself, has the effect of decreasing average earnings and, thus, average benefit levels. While previous projections of average benefit levels for 1992 awards, based on the earlier sample data, had taken both of these elements into account, the actual combined net effect, as measured from the updated sample, was a higher level of average benefits, than had been estimated for 1992 awards, based on the earlier sample.

These and other, smaller effects from updating the sample data of new beneficiaries combined to significantly increase the level of projected benefits and thus significantly decrease the OASDI actuarial balance. In addition, the projected revenue received based on the taxation of OASDI benefits was reduced slightly, reflecting updated

data and estimates received from the Office of Tax Analysis at the Department of the Treasury, and improvements in the long-range method for projecting the level of revenue. The effect of this change was a small decrease in the estimated actuarial balance.

The cost of the OASDI program has been discussed in this section in relation to taxable payroll, which is a program-related concept that is very useful in analyzing the financial status of the OASDI program. The cost can also be discussed in relation to broader economic concepts, such as the gross domestic product (GDP). OASDI outlays generally rise from a little less than 5 percent of GDP currently to about 6.8 percent of GDP by the end of the 75-year projection period under alternative II. Discussion of both the cost and the taxable payroll of the OASDI program in relation to GDP is presented in section III.C.

G. LONG-RANGE SENSITIVITY ANALYSIS

This section presents estimates which illustrate the sensitivity of the long-range actuarial balance of the OASDI program to changes in selected individual assumptions. The estimates based on the three alternative sets of assumptions (see sections II.D and II.F.2) illustrate 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 financial status of the OASDI program. In the sensitivity analysis presented in this section, the intermediate alternative II 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 relative variations in the long-range estimates.

Each table that follows shows the effects of changing a particular assumption on the OASDI 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.

1. Total Fertility Rate

Table II.G1 shows the estimated OASDI income rates, cost rates, and actuarial balances, on the basis of alternative II with various assumptions about the ultimate total fertility rate. These assumptions are that the ultimate total fertility rate will be 1.6 children per woman (as assumed for alternative III), 1.9 (as assumed for alternative II), and 2.2 (as assumed for alternative I). The rate is assumed to change gradually from its current level and to reach the various ultimate values in 2018.

TABLE II.G1.—ESTIMATED OASDI INCOME RATES, COST RATES, AND ACTUARIAL BALANCES, BASED ON INTERMEDIATE ESTIMATES WITH VARIOUS FERTILITY ASSUMPTIONS

[As a percentage of taxable payroll]

Valuation period	Ultimate total fertility rate[1]		
	1.6	1.9	2.2
Summarized income rate:			
25-year: 1994-2018	13.35	13.35	13.35
50-year: 1994-2043	13.25	13.24	13.23
75-year: 1994-2068	13.27	13.24	13.22
Summarized cost rate:			
25-year: 1994-2018	12.81	12.85	12.89
50-year: 1994-2043	14.63	14.53	14.43
75-year: 1994-2068	15.84	15.37	14.91
Balance:			
25-year: 1994-2018	+.53	+.50	+.47
50-year: 1994-2043	−1.39	−1.29	−1.20
75-year: 1994-2068	−2.57	−2.13	−1.70

[1]The total fertility rate for any year is the average number of children who would be born to a woman in her lifetime if she were to experience the birth rates by age observed in, or assumed for, the selected year, and if she were to survive the entire child-bearing period. The ultimate total fertility rate is assumed to be reached in 2018.

For the 25-year period, the cost rate for the three fertility assumptions varies by only 0.08 percent of taxable payroll. In contrast, the 75-year cost rate varies over a wide range, decreasing from 15.84 to 14.91 percent, as the assumed ultimate total fertility rate increases from 1.6 to 2.2. Similarly, while the 25-year actuarial balance varies by only 0.06 percent of taxable payroll, the 75-year actuarial balance varies over a much wider range, from −2.57 to −1.70 percent.

During the 25-year period, changes in fertility affect the working population only slightly and result in relatively minor changes in the number of child beneficiaries. Hence, the program cost is affected only slightly. For the 75-year long-range period, however, changes in fertility have a relatively greater impact on the labor force than on the beneficiary population. As a result, an increase in fertility significantly reduces the cost rate. Each increase of 0.1 in the ultimate total fertility rate increases the long-range actuarial balance by about 0.15 percent of taxable payroll.

2. Death Rates

Table II.G2 shows the estimated OASDI income rates, cost rates, and actuarial balances, on the basis of alternative II with various assumptions about future reductions in death rates. The analysis was developed by varying the percentage decrease assumed to occur during 1993-2068 in the death rates by age, sex, and cause of death.

The decreases assumed for this period, summarized as changes in the age-sex-adjusted death rate, are about 16 percent (as assumed for alternative I), 35 percent (as assumed for alternative II), and 54 percent (as assumed for alternative III). It should be noted that these reductions do not apply uniformly to all ages, as some variation by age was assumed (see section II.H.1) consistent with the objective of selecting assumptions for alternatives I and III that are relatively more optimistic and more pessimistic, respectively, in terms of the financing of the OASDI program.

TABLE II.G2.—ESTIMATED OASDI INCOME RATES, COST RATES, AND ACTUARIAL BALANCES, BASED ON INTERMEDIATE ESTIMATES WITH VARIOUS DEATH-RATE ASSUMPTIONS

[As a percentage of taxable payroll]

Valuation period	Reduction in death rates[1]		
	16 percent	35 percent	54 percent
Summarized income rate:			
25-year: 1994-2018	13.34	13.35	13.36
50-year: 1994-2043	13.22	13.24	13.26
75-year: 1994-2068	13.21	13.24	13.28
Summarized cost rate:			
25-year: 1994-2018	12.63	12.85	13.07
50-year: 1994-2043	14.03	14.53	15.04
75-year: 1994-2068	14.63	15.37	16.20
Balance:			
25-year: 1994-2018	+.72	+.50	+.29
50-year: 1994-2043	−.81	−1.29	−1.78
75-year: 1994-2068	−1.42	−2.13	−2.92

[1]The measure of the reduction in death rates is the decrease in the age-sex-adjusted death rate during 1993-2068.

The variation in cost for the 25-year period is less pronounced than the variation for the 75-year period because the decreases in death rates are assumed to occur gradually and because of the specific changes in the age composition of the population that are projected to occur. The 25-year cost rate increases from 12.63 percent (for 16-percent lower ultimate death rates) to 13.07 percent (for 54-percent lower ultimate rates). The 75-year cost rate increases from 14.63 to 16.20 percent. The actuarial balance decreases from +0.72 to +0.29 percent for the 25-year period, and from −1.42 to −2.92 percent for the 75-year period.

Lower death rates cause both the income (as well as taxable payroll) and the outgo of the OASDI program to be higher than they would otherwise be. The relative increase in outgo, however, exceeds the relative increase in taxable payroll. For any given year, reductions in the death rates for people who have attained the retirement el-

igibility age of 62 (people whose death rates are the highest) increase the number of retired-worker beneficiaries (and, therefore, the amount of retirement benefits paid) without adding significantly to the number of covered workers (and, therefore, to the taxable payroll). Although reductions for people aged 50 to retirement eligibility age do result in significant increases to the taxable payroll, those increases are not large enough to offset the sum of the additional retirement benefits mentioned above and the disability benefits paid to additional beneficiaries in this pre-retirement age group. At ages under 50, death rates are so low that even substantial reductions would not result in significant increases in the numbers of covered workers or beneficiaries. Consequently, if death rates for all ages are lowered by about the same relative amount, outgo increases at a rate greater than the rate of growth in payroll, thereby resulting in higher cost rates. Each additional 10-percentage-point reduction in the age-sex-adjusted death rate assumed to occur in 1993-2068, relative to the 35-percent reduction assumed for alternative II, decreases the long-range actuarial balance by about 0.39 percent of taxable payroll.

3. Net Immigration

Table II.G3 shows the estimated OASDI income rates, cost rates, and actuarial balances, under alternative II with various assumptions about the magnitude of net immigration. These assumptions are that the annual net immigration will be 700,000 persons (as assumed for alternative III), 850,000 persons (as assumed for alternative II), and 1,100,000 persons (as assumed for alternative I).

TABLE II.G3.—ESTIMATED OASDI INCOME RATES, COST RATES, AND ACTUARIAL BALANCES, BASED ON INTERMEDIATE ESTIMATES WITH VARIOUS NET-IMMIGRATION ASSUMPTIONS

[As a percentage of taxable payroll]

Valuation period	Net immigration per year		
	700,000	850,000	1,100,000
Summarized income rate:			
25-year: 1994-2018	13.36	13.35	13.34
50-year: 1994-2043	13.25	13.24	13.23
75-year: 1994-2068	13.25	13.24	13.23
Summarized cost rate:			
25-year: 1994-2018	12.90	12.85	12.78
50-year: 1994-2043	14.63	14.53	14.39
75-year: 1994-2068	15.49	15.37	15.20
Balance:			
25-year: 1994-2018	+.46	+.50	+.57
50-year: 1994-2043	−1.38	−1.29	−1.16
75-year: 1994-2068	−2.23	−2.13	−1.97

For all three periods, the cost rate decreases with increasing rates of net immigration. For the 25-year period, the cost rate decreases from 12.90 percent of taxable payroll (for annual net immigration of 700,000 persons) to 12.78 percent (for annual net immigration of 1,100,000 persons). For the 50-year period, it decreases from 14.63 percent to 14.39 percent, and for the 75-year period, it decreases from 15.49 percent to 15.20 percent. The actuarial balance increases from +0.46 to +0.57 percent for the 25-year period, from –1.38 to –1.16 for the 50-year period, and from –2.23 to –1.97 percent for the 75-year period.

The cost rate decreases with increasing rates of net immigration because immigration occurs at relatively young ages, thereby increasing the numbers of covered workers earlier than the numbers of beneficiaries. Each additional group of 100,000 immigrants relative to the 850,000 net immigration assumed for alternative II, increases the long-range actuarial balance by about 0.07 percent of taxable payroll.

4. Real-Wage Differential

Table II.G4 shows the estimated OASDI income rates, cost rates, and actuarial balances, on the basis of alternative II with various assumptions about the real-wage differential. These assumptions are that the ultimate real-wage differential will be 0.5 percentage point (as assumed for alternative III), 1.0 percentage points (as assumed for alternative II), and 1.5 percentage points (as assumed for alternative I). In each case, the ultimate annual increase in the CPI is assumed to be 4.0 percent (as assumed for alternative II), yielding ultimate percentage increases in average annual wages in covered employment of 4.5, 5.0, and 5.5 percent under alternatives III, II, and I, respectively.

For the 25-year period, the cost rate decreases from 13.25 percent (for a real-wage differential of 0.5 percentage point) to 12.45 percent (for a differential of 1.5 percentage points). For the 50-year period, it decreases from 15.09 to 13.97 percent, and for the 75-year period it decreases from 15.97 to 14.77 percent. The actuarial balance increases from +0.14 to +0.86 percent for the 25-year period, from –1.80 to –0.79 for the 50-year period, and from –2.67 to –1.58 percent for the 75-year period.

TABLE II.G4.—ESTIMATED OASDI 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]		
	4.5-4.0	5.0-4.0	5.5-4.0
Summarized income rate:			
25-year: 1994-2018	13.39	13.35	13.31
50-year: 1994-2043	13.29	13.24	13.19
75-year: 1994-2068	13.30	13.24	13.19
Summarized cost rate:			
25-year: 1994-2018	13.25	12.85	12.45
50-year: 1994-2043	15.09	14.53	13.97
75-year: 1994-2068	15.97	15.37	14.77
Balance:			
25-year: 1994-2018	+.14	+.50	+.86
50-year: 1994-2043	−1.80	−1.29	−.79
75-year: 1994-2068	−2.67	−2.13	−1.58

[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 Consumer Price Index. The difference between the two values is the real-wage differential.

The cost rate decreases with increasing real-wage differentials, because the higher real-wage levels increase the taxable payroll, while benefit increases are not affected. Although the initial benefit levels are higher because of the higher wages, these increases are more than offset by the increases in the taxable payroll of future workers. Each 0.5-percentage-point increase in the assumed real-wage differential increases the long-range actuarial balance by about 0.54 percent of taxable payroll.

5. Consumer Price Index

Table II.G5 shows the estimated OASDI income rates, cost rates, and actuarial balances, on the basis of alternative II with various assumptions about the rate of increase for the Consumer Price Index (CPI). These assumptions are that the ultimate annual increase in the CPI will be 3.0 percent (as assumed for alternative I), 4.0 percent (as assumed for alternative II), and 5.0 percent (as assumed for alternative III). In each case, the ultimate real-wage differential is assumed to be 1.0 percentage points (as assumed for alternative II), yielding ultimate percentage increases in average annual wages in covered employment of 4.0, 5.0, and 6.0 percent under alternatives I, II, and III, respectively.

TABLE II.G5.—ESTIMATED OASDI 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]		
	4.0-3.0	5.0-4.0	6.0-5.0
Summarized income rate:			
25-year: 1994-2018	13.37	13.35	13.33
50-year: 1994-2043	13.26	13.24	13.22
75-year: 1994-2068	13.26	13.24	13.23
Summarized cost rate:			
25-year: 1994-2018	12.99	12.85	12.71
50-year: 1994-2043	14.74	14.53	14.33
75-year: 1994-2068	15.61	15.37	15.14
Balance:			
25-year: 1994-2018	+.37	+.50	+.62
50-year: 1994-2043	−1.48	−1.29	−1.10
75-year: 1994-2068	−2.34	−2.13	−1.91

[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 Consumer Price Index.

For all three periods, the cost rate decreases with greater assumed rates of increase in the CPI. For the 25-year period, the cost rate decreases from 12.99 (for CPI increases of 3.0 percent) to 12.71 percent (for CPI increases of 5.0 percent). For the 50-year period, it decreases from 14.74 to 14.33 percent, and for the 75-year period, it decreases from 15.61 to 15.14 percent. The actuarial balance increases from +0.37 to +0.62 percent for the 25-year period, from −1.48 to −1.10 for the 50-year period, and from −2.34 to −1.91 percent for the 75-year period.

The patterns described above result primarily from the time lag between the effects of the CPI changes on taxable payroll and on benefit payments. When assuming a greater rate of increase in the CPI (in conjunction with a constant real-wage differential), the effect on taxable payroll of the implied greater rate of increase in average wages is experienced immediately, while the effect on benefits of the greater rate of increase in the CPI is experienced with a lag of about 1 year. In addition, the effect on benefits of the greater rate of increase in average wages is experienced no sooner than 2 years later. Thus, the higher taxable payrolls have a stronger effect than the higher benefits, thereby resulting in lower cost rates. 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 0.22 percent of taxable payroll.

6. Real Interest Rate

Table II.G6 shows the estimated OASDI income rates, cost rates, and actuarial balances, on the basis of alternative II with various assumptions about the annual nominal real interest rate for special public-debt obligations issuable to the trust funds, which are compounded semiannually. These assumptions are that the ultimate annual real interest rate will be 1.5 percent (as assumed for alternative III), 2.3 percent (as assumed for alternative II), and 3.0 percent (as assumed for alternative I). In each case, the ultimate annual increase in the CPI is assumed to be 4.0 percent (as assumed for alternative II), resulting in ultimate annual yields of 5.6, 6.4, and 7.1 percent under alternatives III, II, and I, respectively.

TABLE II.G6.—ESTIMATED OASDI 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		
	1.5 percent	2.3 percent	3.0 percent
Summarized income rate:			
25-year: 1994-2018	13.31	13.35	13.38
50-year: 1994-2043	13.21	13.24	13.27
75-year: 1994-2068	13.23	13.24	13.27
Summarized cost rate:			
25-year: 1994-2018	12.93	12.85	12.78
50-year: 1994-2043	14.84	14.53	14.28
75-year: 1994-2068	15.84	15.37	14.98
Balance:			
25-year: 1994-2018	+.38	+.50	+.60
50-year: 1994-2043	−1.63	−1.29	−1.01
75-year: 1994-2068	−2.61	−2.13	−1.71

For the 25-year period, the cost rate decreases slightly with increasing real interest rates from 12.93 percent (for an ultimate real interest rate of 1.5 percent) to 12.78 percent (for an ultimate real interest rate of 3.0 percent). For the 50-year period, it decreases from 14.84 to 14.28 percent, and for the 75-year period, it decreases from 15.84 to 14.98 percent. The actuarial balance increases from +0.38 to +0.60 percent for the 25-year period, from −1.63 to −1.01 percent for the 50-year period, and from −2.61 to −1.71 percent for the 75-year period. Each 0.5-percentage-point increase in the assumed real interest rate increases the long-range actuarial balance by about 0.30 percent of taxable payroll.

7. Disability Incidence Rates

Table II.G7 shows the estimated OASDI income rates, cost rates, and actuarial balances, on the basis of alternative II with various assumptions concerning future disability incidence rates. For all three alternatives, incidence rates by age and sex are assumed to increase during the early years of the projection period before declining to ultimate levels, which are attained in 2008. At that time they reach levels that, in comparison to the corresponding annual rates experienced during the base period, 1984-86, are higher by about 8 percent for alternative I, 35 percent for alternative II, and 62 percent for alternative III.

TABLE II.G7.—ESTIMATED OASDI INCOME RATES, COST RATES, AND ACTUARIAL BALANCES, BASED ON INTERMEDIATE ESTIMATES WITH VARIOUS DISABILITY INCIDENCE ASSUMPTIONS

[As a percentage of taxable payroll]

Valuation period	Disability incidence rates based on alternative—		
	I	II	III
Summarized income rate:			
25-year: 1994-2018	13.35	13.35	13.35
50-year: 1994-2043	13.24	13.24	13.24
75-year: 1994-2068	13.24	13.24	13.25
Summarized cost rate:			
25-year: 1994-2018	12.65	12.85	13.04
50-year: 1994-2043	14.26	14.53	14.79
75-year: 1994-2068	15.07	15.37	15.66
Balance:			
25-year: 1994-2018	+.70	+.50	+.31
50-year: 1994-2043	−1.03	−1.29	−1.55
75-year: 1994-2068	−1.83	−2.13	−2.41

For the 25-year period, the cost rate increases with increasing disability incidence rates from 12.65 percent (for the relatively low rates assumed for alternative I) to 13.04 percent (for the relatively high rates assumed for alternative III). For the 50-year period, it increases from 14.26 to 14.79 percent, and for the 75-year period, it increases from 15.07 to 15.66 percent. The actuarial balance decreases from +0.70 to +0.31 percent for the 25-year period, from −1.03 to −1.55 percent for the 50-year period, and from −1.83 to −2.41 percent for the 75-year period. Each 10-percentage point increase from the base period in the ultimate assumed gross incidence rate decreases the long-range OASDI actuarial balance by about 0.11 percent of taxable payroll.

8. Disability Termination Rates

Table II.G8 shows the estimated OASDI income rates, cost rates, and actuarial balances, on the basis of alternative II with various assumptions about future disability termination rates.

For alternative II, death-termination rates by age and sex are assumed to decline until they reach levels by the end of the 75-year period that, in comparison to the corresponding annual rates experienced during the base period, 1977-80, are lower by about 15 percent for men and 10 percent for women. For the other alternatives, the rates are assumed to spread gradually from the rates for alternative II. By the end of the projection period, for men the rates are about 28 percent higher for alternative I and lower for alternative III, and for women they are about 33 percent higher and lower, respectively.

For alternative II, ultimate recovery-termination rates by age and sex are assumed to be attained in 2008; such rates are assumed to be about 35 percent lower than those experienced in the base period, 1977-80. For the other alternatives, the rates are assumed to spread gradually from the rates for alternative II; from that year until the end of the projection period the rates under alternative I and III are 20 percent higher and lower, respectively, than the rates for alternative II.

TABLE II.G8.—ESTIMATED OASDI INCOME RATES, COST RATES, AND ACTUARIAL BALANCES, BASED ON INTERMEDIATE ESTIMATES WITH VARIOUS DISABILITY TERMINATION ASSUMPTIONS

[As a percentage of taxable payroll]

Valuation period	Disability termination rates based on alternative—		
	I	II	III
Summarized income rate:			
25-year: 1994-2018	13.35	13.35	13.35
50-year: 1994-2043	13.24	13.24	13.24
75-year: 1994-2068	13.24	13.24	13.25
Summarized cost rate:			
25-year: 1994-2018	12.82	12.85	12.88
50-year: 1994-2043	14.47	14.53	14.59
75-year: 1994-2068	15.29	15.37	15.45
Balance:			
25-year: 1994-2018	+.53	+.50	+.47
50-year: 1994-2043	−1.23	−1.29	−1.35
75-year: 1994-2068	−2.05	−2.13	−2.21

For the 25-year period, the cost rate increases with decreasing disability termination rates from 12.82 percent (for the relatively high

rates assumed for alternative I) to 12.88 percent (for the relatively low rates assumed for alternative III). For the 50-year period, it increases from 14.47 to 14.59 percent, and for the 75-year period, it increases from 15.29 to 15.45 percent. The actuarial balance decreases from +0.53 to +0.47 percent for the 25-year period, from –1.23 to –1.35 percent for the 50-year period, and from –2.05 to –2.21 percent for the 75-year period.

H. ASSUMPTIONS AND METHODS UNDERLYING THE ACTUARIAL ESTIMATES

This section describes the assumptions and methods which underlie the actuarial estimates in this report. Unless specifically stated otherwise, the assumptions and methods were used for each of the three alternatives and for both the short-range and long-range periods. Some of the principal economic and demographic assumptions which vary by alternative are summarized in section II.D. Further details about the assumptions, methods, and actuarial estimates are contained in Actuarial Studies published by the Office of the Actuary, Social Security Administration, which are available upon request.

1. Total Population

Projections were made of the population in the Social Security Area by age, sex, and marital status as of January 1 of each year 1993 through 2080. The starting Social Security Area population for January 1, 1992 was developed from the estimated United States population, including armed forces overseas, based on data from the Bureau of the Census, adjusted for net census undercount and increased for other U.S. citizens living abroad and for populations in the geographic areas covered by the OASDI program but not included in the U.S. population. This starting population was then projected using assumed rates of birth, death, marriage, and divorce and assumed levels of migration.

Historically, fertility rates in the United States have fluctuated widely. The total fertility rate is defined to be the average number of children that would be born to a woman in her lifetime if she were to experience the birth rates by age observed in, or assumed for, the selected year, and if she were to survive the entire child-bearing period. The total fertility rate decreased from 3.3 children per woman after World War I to 2.1 during the Great Depression, rose to 3.7 in 1957, and then fell to 1.7 in 1976. After 1976, the total fertility rate began to rise again, reaching a level of 2.07 for 1991. Since then, it has declined slightly to a level currently estimated at 2.05 for 1992 and 1993.

These variations in fertility rates have resulted from changes in many factors, including social attitudes, economic conditions, and the use of birth-control methods. Future fertility rates may be expected to

remain close to recent levels. The recent historical and projected trends in certain population characteristics are consistent with a continued relatively low fertility rate. These trends include the rising percentages of women who have never married, of women who are divorced, and of young women who are in the labor force. Based on consideration of these factors, ultimate total fertility rates of 2.2, 1.9, and 1.6 children per woman were selected for alternatives I, II, and III, respectively. For each alternative, the total fertility rate is assumed to reach its ultimate level in 2018. A rate of 2.1 would ultimately result in a nearly constant population if net immigration were zero and if death rates were constant.

Historically, death rates in the United States, calculated using final data for 1900-91 and provisional data for 1992, show a steady declining trend. The age-sex-adjusted death rate—which is calculated here as the crude rate that would occur in the enumerated total population as of April 1, 1980, if that population were to experience the death rates by age and sex for the selected year—declined at an average rate of 1.2 percent per year between 1900 and 1991. These reductions in death rates have resulted from many factors, including increased medical knowledge and availability of health-care services, and improvements in personal health-care practices such as diet and exercise. Based on consideration of the likelihood of continued progress in these and other areas, three alternative sets of ultimate annual percentage reductions in central death rates by age, sex, and cause of death were selected for 2018 and later. The intermediate set, which is used for alternative II, is considered to be the one closest to average expectations. Except for those causes of death which primarily affect workers and children, the average annual percentage reductions used for alternative I are smaller than those for alternative II, while those used for alternative III are greater. Between 1992 and 2018, the reductions in central death rates for alternative II are assumed to change gradually from the average annual reductions by age, sex, and cause of death observed between 1968 and 1991, to the ultimate annual percentage reductions by age, sex, and cause of death assumed for 2018 and later. Alternative I reductions are assumed to change gradually from 50 percent of the average annual reductions observed between 1968 and 1991, while alternative III reductions are assumed to change gradually from 150 percent of the average annual reductions observed between 1968 and 1991. The age-sex-adjusted death rate (for all causes combined) declined at an

average rate of 1.4 percent per year between 1968 and 1991.

After adjustment for changes in the age-sex distribution of the population, the resulting death rates were projected to decline at an average annual rate of about 0.3 percent, 0.6 percent, and 1.0 percent between 1991 and 2068 for alternatives I, II, and III, respectively.

For calendar years 1992 and 1993, the net legal immigration is assumed to be 608,000 and 630,000 persons per year, respectively. In addition, for these years the net other-than-legal immigration assumption is 200,000 persons per year, which is consistent with the estimates of net other-than-legal immigration made by the Bureau of the Census based on the 1990 Census. The Immigration Act of 1990 increased substantially the number of legal immigrants permitted starting in 1992. For calendar year 1994, net immigration is assumed to be 1,110,000, 845,000, and 675,000 persons per year for alternatives I, II, and III, respectively. Of these net numbers of immigrants, 760,000, 645,000, and 575,000, respectively, are assumed to be legal, and the remainders are assumed to be other-than-legal. Based on changes in immigration categories and limits specified in the 1990 legislation, the estimated level of net legal immigration varies for years through 2000, reaching an assumed ultimate level for 2001 and later. Net immigration for 1995 is assumed to be 1,130,000, 860,000, and 700,000 persons per year for alternatives I, II, and III, respectively. Of these net numbers of immigrants, 780,000, 660,000, and 600,000, respectively, are assumed to be legal, and the remainders are assumed to be other-than-legal. Net immigration for 1996 through 2000 is assumed to be 1,150,000, 875,000, and 700,000 persons per year for alternatives I, II, and III, respectively. Of these net numbers of immigrants, 800,000, 675,000, and 600,000, respectively, are assumed to be legal, and the remainders are assumed to be other-than-legal. Net immigration for 2001 and later is assumed to be 1,100,000, 850,000, and 700,000 persons per year for alternatives I, II, and III, respectively. Of these net numbers of immigrants, 750,000, 650,000, and 600,000, respectively, are assumed to be legal, and the remainders are assumed to be other-than-legal.

Table II.H1 shows the projected population as of July 1 by broad age group, for the three alternatives. Also shown are tabulated aged dependency ratios (see table footnotes for definitions). Because eligibility for many types of OASDI benefits depends on marital status, the population was projected by marital status, as well as by age

and sex. Marriage and divorce rates were based on recent data from the National Center for Health Statistics.

TABLE II.H1.—SOCIAL SECURITY AREA POPULATION AS OF JULY 1 AND DEPENDENCY RATIOS, BY ALTERNATIVE AND BROAD AGE GROUP, CALENDAR YEARS 1950-2070

	Population (in thousands)				Dependency ratio	
Calendar year	Under 20	20-64	65 and over	Total	Aged[1]	Total[2]
Historical data:						
1950	53,895	92,739	12,752	159,386	0.138	0.719
1960	72,989	99,842	17,250	190,081	.173	.904
1970	80,672	113,184	20,920	214,776	.185	.898
1975	78,428	122,852	23,265	224,545	.189	.828
1980	74,549	134,393	26,143	235,085	.195	.749
1985	73,213	144,548	28,996	246,757	.201	.707
1990	74,914	152,525	31,918	259,357	.209	.700
Intermediate:						
1995	78,887	160,203	34,363	273,453	.214	.707
2000	81,001	168,547	35,476	285,025	.210	.691
2005	81,288	177,532	36,843	295,662	.208	.665
2010	80,760	185,261	39,945	305,965	.216	.652
2015	80,210	189,778	45,957	315,946	.242	.665
2020	80,657	191,111	53,322	325,090	.279	.701
2025	81,352	190,077	61,619	333,047	.324	.752
2030	81,639	189,628	68,282	339,549	.360	.791
2035	81,519	191,467	71,636	344,623	.374	.800
2040	81,464	194,585	72,456	348,505	.372	.791
2045	81,602	197,001	72,935	351,538	.370	.784
2050	81,890	197,924	74,276	354,090	.375	.789
2055	82,153	197,863	76,494	356,509	.387	.802
2060	82,298	197,571	79,148	359,017	.401	.817
2065	82,378	198,219	81,017	361,614	.409	.824
2070	82,496	199,164	82,458	364,119	.414	.828
Low Cost:						
1995	79,068	160,525	34,320	273,914	.214	.706
2000	82,158	169,919	35,179	287,255	.207	.691
2005	84,051	179,919	36,127	300,097	.201	.668
2010	85,806	188,619	38,757	313,181	.205	.660
2015	88,231	194,200	44,275	326,706	.228	.682
2020	91,934	197,146	51,093	340,173	.259	.725
2025	95,731	198,383	58,733	352,847	.296	.779
2030	98,978	200,871	64,632	364,481	.322	.815
2035	101,762	206,282	67,250	375,293	.326	.819
2040	104,593	213,587	67,517	385,697	.316	.806
2045	107,879	220,583	67,626	396,087	.307	.796
2050	111,450	226,615	68,723	406,788	.303	.795
2055	114,959	232,323	70,777	418,059	.305	.799
2060	118,274	238,474	73,277	430,026	.307	.803
2065	121,546	245,765	75,293	442,604	.306	.801
2070	124,957	253,385	77,224	455,566	.305	.798

TABLE II.H1.—SOCIAL SECURITY AREA POPULATION AS OF JULY 1 AND DEPENDENCY RATIOS, BY ALTERNATIVE AND BROAD AGE GROUP, CALENDAR YEARS 1950-2070 (Cont.)

Calendar year	Population (in thousands)				Dependency ratio	
	Under 20	20-64	65 and over	Total	Aged[1]	Total[2]
High Cost:						
1995	78,752	160,015	34,411	273,179	0.215	0.707
2000	80,035	167,645	35,781	283,460	.213	.691
2005	78,870	175,770	37,537	292,178	.214	.662
2010	76,263	182,821	41,085	300,168	.225	.642
2015	73,013	186,752	47,603	307,368	.255	.646
2020	70,585	187,029	55,583	313,198	.297	.675
2025	68,679	184,332	64,653	317,665	.351	.723
2030	66,644	181,569	72,290	320,502	.398	.765
2035	64,423	180,428	76,732	321,583	.425	.782
2040	62,454	179,962	78,580	320,996	.437	.784
2045	60,572	178,478	79,972	319,021	.448	.787
2050	58,822	175,121	82,103	316,046	.469	.805
2055	57,179	170,329	84,993	312,501	.499	.835
2060	55,594	164,875	88,248	308,718	.535	.872
2065	54,053	160,445	90,317	304,815	.563	.900
2070	52,586	156,553	91,548	300,687	.585	.921

[1]Population aged 65 and over, divided by population aged 20-64.

[2]Sum of population aged 65 and over, and population under age 20, divided by population aged 20-64.

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

2. Covered Population

The number of covered workers in a year is defined as the number of persons who, at any time during the year, have OASDI taxable earnings. Projections of the number of covered workers were made by applying projected coverage rates to the projected Social Security Area population. The coverage rates—i.e., the number of covered workers in the year, as a percentage of the population as of July 1—were determined by age and sex using projected labor force participation rates and unemployment rates, and their historical relationships to coverage rates. In addition, the coverage rates were adjusted to reflect the increase in coverage of (1) State and local government employment that will result from the Omnibus Budget Reconciliation Act of 1990 and (2) Federal civilian employment that will result from the 1983 Social Security Amendments.

Labor force participation rates were projected by age and sex, taking into account projections of the percentage of the population that is married, the percentage of the population that is disabled, the number of children in the population, the level of retirement benefits, and the state of the economy. All of these factors vary by alternative. For men, the projected age-adjusted labor force participation rates for the year 2070 for alternatives I, II, and III are 0.9, 1.5, and 2.3

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percentage points lower, respectively, than the 1993 level of 75.6 percent. For women, the projected age-adjusted labor force participation rates increase for alternatives I and II and decrease for alternative III. The projected rates for 2070 are 2.1, 0.8, and –1.2 percentage points, respectively, different from the 1993 level of 57.9 percent.

The total age-sex-adjusted unemployment rate averaged 5.7 percent for the last 30 years 1964-93 and 6.2 percent for the last 10 years 1984-93. The ultimate total age-sex-adjusted unemployment rate is assumed to be 5, 6, and 7 percent for alternatives I, II, and III, respectively. Because the unemployment rate depends on the state of the economy, cyclical trends are reflected in the short-range period. Unemployment levels off to the assumed ultimate age-sex-adjusted rate by the year 2004, for each of the three alternatives.

The projected age-adjusted coverage rate for men changes from its 1993 level of 72.9 percent to 73.3, 72.4, and 71.4 percent in 2070 on the basis of alternatives I, II, and III, respectively. For women, it changes from its 1993 level of 59.5 percent to 61.4, 59.7, and 57.4 percent for alternatives I, II, and III, respectively.

3. Average Earnings, Inflation, and Real Interest Rate

Future increases in average earnings and in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W, hereinafter denoted as "CPI") will directly affect the OASDI program. Increases in the CPI directly affect the automatic cost-of-living benefit increases, while inflation, in general, affects the nominal levels of average earnings, GDP, and taxable payroll. Average earnings in covered employment for each year have a direct effect on the size of the taxable payroll and on the future level of average benefits. In addition, increases in average wages in the U.S. economy directly affect the indexation, under the automatic-adjustment provisions in the law, of the benefit formulas, the contribution and benefit base, the exempt amounts under the retirement earnings test, the amount of earnings required for a quarter of coverage, and under certain circumstances, the automatic cost-of-living benefit increases.

Increases in average earnings were projected in two components—average earnings of wage-and-salary workers, usually referred to as average wages (and shown for OASDI covered employment in table

II.D1 of this report), and average net earnings of self-employed persons. Each of these was subdivided into increases in real average earnings and increases in the CPI. For simplicity, real increases in the average covered wage are sometimes expressed in the form of real-wage differentials—i.e., the percentage increase in the average nominal wage minus the percentage increase in the CPI.

The assumed ultimate increases in average real earnings are based on analysis of trends in productivity gains and the factors linking productivity gains with increases in average real earnings. For the 40 years 1953-92, annual increases in productivity for the total U.S. economy averaged 1.7 percent, the result of average annual increases of 2.4, 2.4, 0.8, and 1.2 percent for the 10-year periods 1953-62, 1963-72, 1973-82 and 1983-92, respectively. Meanwhile, the average annual rate of change in average real earnings for the total U.S. economy was an increase of 1.0 percent for the 40 years 1953-92, the result of average annual increases of 2.2, 2.1, –1.5, and 1.3 percent, respectively, for the aforementioned 10-year periods. The change in the linkage between annual increases in productivity and real earnings averaged –0.7 percent for the 40 years 1953-92, and –0.2, –0.3, –2.2, and 0.1 percent, respectively, for the aforementioned 10-year periods. The change in the linkage reflects changes in such factors as the average number of hours worked per year, labor's share of total output, the proportion of employee compensation paid as wages, and price adjustment reflecting the ratio of the GDP implicit price deflator to the CPI.

The average annual rate of change in the average real wage in OASDI covered employment was nearly 1.2 percent over the 40 years 1953-92. However this rate of change varied considerably over this period. The average annual rates of change for the 10 year-periods 1953-62, 1963-72, 1973-82, and 1983-92 were 2.5 percent, 1.8 percent, –0.8 percent and 1.3 percent, respectively.

The ultimate annual increases in productivity for all sectors—wage-and-salary workers, self-employed persons, and the total economy—are assumed to be about 1.7, 1.4, and 1.1 percent for alternatives I, II, and III, respectively. The corresponding ultimate annual rates of change in the linkage for wage-and-salary workers are assumed to be declines of 0.2, 0.4, and 0.6 percent for alternatives I, II, and III, respectively. This linkage is made up of assumed annual decreases of 0.1, 0.2, and 0.3 percent in average hours worked per

year, and 0.1, 0.2, and 0.3 percent annual declines in wages as a share of compensation, for alternatives I, II, and III, respectively. No ultimate change is assumed for the historically relatively stable ratio of employee compensation to GDP. The resulting ultimate real-wage differentials are 1.5, 1.0, and 0.5 percent for alternatives I, II, and III, respectively. Ultimate annual declines in the linkage for self-employed persons are smaller because the proportion of reported compensation that is considered earnings remains constant. As a result, ultimate average real-earnings growth rates for the self-employed are assumed to be higher than for wage-and-salary workers. The corresponding ultimate average real-earnings for wage-and-salary workers and self-employed persons, combined, are slightly higher than those assumed for wage-and-salary workers only.

Historically, the CPI has increased, on average, by 4.2 percent for the last 40 years 1954-93, 5.2 percent for the last 30 years 1964-93, 6.0 percent for the last 20 years 1974-93, and 3.6 percent for the last 10 years 1984-93. The 6.0 percent increase during 1974-93 reflects sharp increases in oil prices and their subsequent effect on the overall economy. The ultimate average annual CPI increases of 3.0, 4.0, and 5.0 percent for alternatives I, II, III, respectively, were chosen to include a reasonable range of possible future experience. The GDP implicit price deflator has increased by 4.4 percent annually for the last 40 years 1954-93, 5.2 percent annually for the last 30 years 1964-93, 5.7 percent annually for the last 20 years 1974-93, and 3.6 percent annually for the last 10 years 1984-93. For this Trustees Report, increases in the GDP implicit price deflator are assumed to be slower by about 0.2 percent, 0.3 percent, and 0.5 percent annually than increases in the CPI-W for alternatives I, II, and III, respectively, for the first 10 projection years 1994-2003. The assumed differential between the increase in the GDP implicit price deflator and the increase in the CPI-W reflects the anticipation of three trends for the first 10 projection years 1994-2003. These are: (1) relatively slower increases in computer prices, which are weighted more heavily in the implicit price deflator, (2) relatively faster increases in energy prices which are weighted more heavily in the CPI, and (3) relatively faster increases in health service prices, which are a larger component of the CPI. However, ultimate annual rates of increase in the

GDP implicit price deflator are assumed to be the same, for each alternative, as for the CPI-W.

The ultimate increases in average annual wages in covered employment are assumed to be 4.5, 5.0, and 5.5 percent, for alternatives I, II, and III, respectively. These were obtained, for each alternative, by adding the assumed annual percentage increase in the CPI to the assumed real-wage differential. Ultimate increases in average wages and earnings for the U.S. economy are very similar to those assumed for average wages in covered employment.

The interest rate considered in this report is the nominal interest rate, which is compounded semiannually, for special U.S. government obligations issuable to the trust funds in each of 12 months of the year. The real interest rate is defined to be the annual (compounded) yield rate for investments in these securities less growth in the CPI-W.

In developing a reasonable range of assumed future real interest rates for the three alternatives, historical experience was examined for the last 40 years, 1953-92, and for each of the 10-year subperiods, 1953-62, 1963-72, 1973-82, and 1983-92. For the 40-year period, the real interest rate averaged 2.3 percent per year. For the four 10-year subperiods, the real interest rates averaged 1.3, 1.8, –0.2, and 6.1 percent per year, respectively. The assumed ultimate real interest rates are 3.0 percent, 2.3 percent, and 1.5 percent for alternatives I, II, and III, respectively. The projected interest rates are assumed to trend toward these ultimate interest rates by attaining the ultimate values after the tenth projection year.

4. Taxable Payroll and Taxes

The taxable payroll for any period is that amount which, when multiplied by the combined employee-employer tax rate, yields the total amount of taxes paid by employees, employers, and the self-employed for work during the period. The taxable payroll is important not just in estimating OASDI income, but also in determining income and cost rates, and actuarial balances. These terms are defined in the introduction to the section entitled "Actuarial Estimates."

In practice, the taxable payroll is calculated as a weighted average of the earnings on which employees, employers, and self-employed

persons make contributions to the OASDI program. The weighting takes into account the lower tax rates, as compared to the combined employee-employer rate, which apply to multiple-employer "excess wages," and which did apply, before 1984, to net earnings from self-employment and, before 1988, to tips. For 1983 and later, taxable payroll also includes deemed wage credits for military service. Estimates of taxable earnings for employees, employers, and the self-employed were developed from corresponding estimates of earnings in the U.S. economy, by means of factors which adjust for various differences in these measures. The factors adjust total U.S. earnings by removing earnings from noncovered employment, adding earnings from various outlying areas which are covered by Social Security but are not included in published "U.S." data, and removing earnings above the taxable earnings base.

Decreases in the ratio of taxable earnings to earnings in OASDI covered employment since 1984, due to the higher proportion of total covered earnings earned by very high wage earners, are projected to continue through the first ten years of the projection. This ratio is projected to decline from a level of 0.875 for 1993 to ultimate levels of 0.873, 0.860, and 0.848, by the end of the tenth projection year for alternatives I, II, and III, respectively. These ultimate ratios of taxable earnings to OASDI covered earnings are each about one percentage point lower than was assumed last year and thus tend to decrease the projected level of taxable payroll as compared with estimates in the 1993 Trustees' Report.

Estimates of taxes collected were developed from the estimates of taxable earnings by applying the employee, employer, or self-employed tax rate, and by taking into account the lag time from the incurrence of tax liability to the collection of taxes.

5. Insured Population

There are three basic types of insured status under the OASDI program: fully insured, currently insured, and disability insured. Fully insured status is required of an aged worker for eligibility to a primary retirement benefit and for the eligibility of that worker's spouse and children to auxiliary benefits. Fully insured status is also required of a deceased worker for the eligibility of the worker's survivors to benefits (with the exception of child survivors and parents

of eligible child survivors, in which cases the deceased worker is required to have had either currently insured status or fully insured status). Disability insured status, which is more restrictive than fully insured status, is required of a disabled worker for eligibility to a primary disability benefit and for the eligibility of the worker's spouse and children to auxiliary benefits.

Projections of the percentage of the population that is fully insured were made by age and sex, from estimated distributions of workers by accumulated quarters of coverage based on past and projected coverage rates and amounts of earnings required for quarters of coverage. Currently insured status was disregarded for purposes of these estimates, because the number of cases in which eligibility for benefits is based solely on currently insured status is relatively small. Projections of the percentage of fully insured persons who are also disability insured were made by age and sex based on past and projected coverage rates, the requirement for disability insured status, and their historical relationships. Finally, the fully insured and disability insured populations were developed from the projected total population by applying the appropriate percentages.

Under this procedure, the percentage of the Social Security Area population aged 62 and over that is fully insured is projected to increase from 77.1 on January 1, 1993, to 90.9, 90.6, and 90.1 on January 1, 2069, based on alternatives I, II, and III, respectively. The increase for females is projected to be significant, while the increase for males is slight. Based on alternative II, for example, the percentage for males is projected to increase during this period from 92.2 to 92.6, while that for females is projected to increase from 66.2 to 89.1.

The fully insured population by age and sex was further subdivided by marital status, using the variation in labor force participation rates by marital status to estimate the variation in coverage rates by marital status. These coverage rates were then used to estimate the variation in the fully insured rates by marital status.

6. Old-Age and Survivors Insurance Beneficiaries

The number of OASI beneficiaries was projected for each type of benefit separately, by the sex of the worker on whose earnings the benefits are based, and by the age of the beneficiary. For selected

types of benefits, the number of beneficiaries was also projected by marital status.

For the short-range period, the number of retired-worker beneficiaries was developed by applying award rates to the aged fully insured population less those persons entitled to retired-worker, disabled-worker, or widow(er)'s benefits, and by applying termination rates to the number of persons already receiving retired-worker benefits.

For the long range, the number of retired-worker beneficiaries who were not previously converted from disabled-worker beneficiary status was projected as a percentage of the "exposed population," i.e., the aged fully insured population less those persons entitled to or converted from disability benefits and those insured persons entitled to widow(er)'s benefits. The percentage for ages 70 and over was assumed to be nearly 100, because the retirement earnings test and delayed retirement credit do not apply after age 70. The percentage for each age 62 through 69 was projected in accordance with observed historical and projected short-range trends, with an adjustment to reflect changes in the ratio of the monthly benefit amount payable at each age of entitlement to the amount payable at age-70 entitlement. As the increases in the delayed retirement credit become effective and, beginning in 2000, the normal retirement age increases, the number of retired workers as a percentage of the exposed population is gradually adjusted downward at each age 62 through 69, reaching an ultimate value, in 2030.

An additional adjustment to the projected number of retired worker beneficiaries was made during the long-range period to reflect projected changes in the number of other-than-legal aliens as a percentage of the population. This resulted in a downward adjustment in the percentage of the population that is receiving retired worker benefits starting in year 2004 and continuing until the end of the projection period. For the long-range period, the number of retired-worker beneficiaries who are converted from disabled-worker beneficiaries was calculated separately in a manner consistent with the calculation of disabled-worker beneficiaries.

The number of aged-spouse beneficiaries was estimated from the population projected by age and sex. The benefits of aged-spouse beneficiaries are based on the earnings records of their husbands or

wives, who are referred to as "wage earners." In the short-range period, a regression equation was used to project the number of aged-spouse beneficiaries, as a proportion of the aged uninsured female or male population. In the long-range period, aged-spouse beneficiaries were estimated from the population projected by age, sex, and marital status. To the number of spouses aged 62 and over in the population, a series of factors were applied, representing the probabilities that the spouse and the wage earner meet all of the conditions of eligibility—i.e., the probabilities that (1) the wage earner is 62 or over, (2) the wage earner is insured, (3) the wage earner is receiving benefits, (4) the spouse is not receiving a benefit for the care of an entitled child, (5) the spouse is not insured, (6) the spouse is not eligible to receive a significant government pension based on earnings in noncovered employment, and (7) a residual factor.

In addition, the same factors were applied to the number of divorced persons aged 62 and over in the population, with three differences. First, an additional factor is required to reflect the probability that the person's former wage-earner spouse is still alive (otherwise, the person may be entitled to a divorced widow(er)'s benefit). Second, a factor is required to reflect the probability that the marriage to the wage-earner spouse was at least 10 years in duration. Third, factor (3) was not applied because, effective for January 1985, a divorced person generally need not wait to receive benefits until the former wage-earner spouse is receiving benefits.

The projected numbers of children under age 18, and students aged 18, who are eligible for benefits as children of retired-worker beneficiaries, were based on the projected number of children in the population. In the short-range period, the number of entitled children was developed by applying award rates to the number of children in the population where both parents are alive, and by applying termination rates to the number of children already receiving benefits. In the long-range period, entitled children were projected separately by sex of the wage-earner parent. To the number of children in the population, factors were applied representing the probabilities that the parent is alive, aged 62 or over, insured, and receiving a retired-worker benefit. Another factor was applied representing the probability that the child is not entitled to a benefit based on the other parent's earnings. For children aged 18, a factor was applied

representing the probability that the child is attending a secondary school.

The number of disabled children aged 18 and over of retired-worker beneficiaries was projected from the adult population. In the short-range period, award rates were applied to the uninsured population, and termination rates were applied to the number of disabled children already receiving benefits. In the long-range period, disabled children were projected in a manner similar to that for children under 18, with the inclusion of a factor representing the probability of being disabled since childhood.

In the short-range period, the number of young-spouse beneficiaries was projected as a proportion of the projected number of child beneficiaries who are either under age 16 or disabled. In the long-range period, young-spouse beneficiaries were projected as a proportion of the projected number of child beneficiaries of retired workers, taking into account projected changes in average family size.

The number of aged-widow(er) beneficiaries was projected from the population by age and sex. In the short-range period, insured aged-widow(er) beneficiaries were projected concurrently with the retired-worker beneficiaries. A regression equation projected the number of uninsured aged-widow(er) beneficiaries, as a proportion of the uninsured aged female or male population not receiving any type of benefit. In the long-range period, aged-widow(er) beneficiaries were projected from the population by age, sex, and marital status. Four factors were applied to the number of widow(er)s in the population aged 60 and over. These factors represent the probabilities that (1) the deceased wage earner was fully insured at death, (2) the widow(er) is not receiving a benefit for the care of an entitled child, (3) the widow(er) is not fully insured, and (4) the widow(er)'s benefits are not withheld because of receipt of a significant government pension based on earnings in noncovered employment. In addition, some insured widow(er)s who had not applied for their retired-worker benefits are assumed to receive widow(er) benefits. Also, the same factors were applied to the number of divorced persons aged 60 and over in the population, with additional factors representing the probability that the person's former wage-earner spouse is deceased and that the marriage was at least 10 years in duration.

In the short-range period, the number of disabled-widow(er) ben-

eficiaries was estimated as a proportion of the uninsured female or male population aged 50-64. In the long-range period, the number was projected for each age 50 through 64 as a percentage of the widowed and divorced populations, adjusted for the insured status of the deceased spouse and the prevalence of disability.

The projected numbers of children under age 18, and students aged 18, who are eligible for benefits as survivors of deceased workers, were based on the projected number of children in the population whose mothers or fathers are deceased. In the short-range period, the number of entitled children was developed by applying award rates to the number of orphaned children, and by applying termination rates to the number of children already receiving benefits. In the long-range period, the number of child-survivor beneficiaries was projected in a manner analogous to that for child beneficiaries of retired workers, with the factor representing the probability that the parent is aged 62 or over being replaced by a factor that represented the probability that the parent is deceased.

In the short-range period, the numbers of mother-survivor and father-survivor beneficiaries were projected from the number of child-survivor beneficiaries who are either under age 16 or disabled. In the long-range period, mother-survivor and father-survivor beneficiaries were estimated from the number of child-survivor beneficiaries, taking into account projected changes in average family size.

The number of parent-survivor beneficiaries was projected based on the historical pattern of the number of such beneficiaries.

Table II.H2 shows the projected number of beneficiaries under the OASI program by type of benefit. Included among the beneficiaries who receive retired-worker benefits are some persons who also receive a residual benefit consisting of the excess of an auxiliary benefit over their retired-worker benefit. Estimates of the number of such residual payments were made separately for spouses and widow(er)s.

TABLE II.H2.—OASI BENEFICIARIES WITH MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS AS OF DECEMBER 31 BY ALTERNATIVE, CALENDAR YEARS 1945-2070

[In thousands]

	Retired workers and auxiliaries			Survivors				
Calendar year	Worker	Wife-husband	Child	Widow-widower	Mother-father	Child	Parent	Total
Historical data:								
1945	518	159	13	94	121	377	6	1,288
1950	1,771	508	46	314	169	653	15	3,477
1955	4,474	1,192	122	701	292	1,154	25	7,961
1960	8,061	2,269	268	1,544	401	1,577	36	14,157
1965	11,101	2,614	461	2,371	472	2,074	35	19,128
1970	13,349	2,668	546	3,227	523	2,688	29	23,030
1975	16,588	2,867	643	3,889	582	2,919	21	27,509
1980	19,562	3,016	639	4,411	562	2,610	15	30,814
1985	22,432	3,069	457	4,863	372	1,917	10	33,120
1986	22,987	3,088	450	4,931	350	1,875	9	33,690
1987	23,440	3,090	440	4,984	329	1,836	8	34,126
1988	23,858	3,086	432	5,029	318	1,810	7	34,539
1989	24,327	3,093	423	5,071	312	1,780	6	35,012
1990	24,838	3,101	422	5,111	304	1,776	6	35,559
1991	25,289	3,104	426	5,158	301	1,791	5	36,074
1992	25,758	3,112	432	5,205	294	1,808	5	36,614
1993	26,104	3,094	437	5,224	289	1,839	5	36,993
Intermediate:								
1995	26,811	3,064	461	5,319	296	1,918	4	37,873
2000	28,241	2,989	504	5,479	306	2,070	3	39,592
2005	30,107	2,888	562	5,619	304	2,124	3	41,607
2010	33,704	2,779	619	5,723	284	2,043	3	45,155
2015	39,718	2,651	687	5,854	272	1,974	3	51,160
2020	46,926	2,604	752	5,964	269	1,945	3	58,461
2025	53,512	2,609	791	6,071	271	1,944	3	65,202
2030	58,541	2,559	815	6,119	271	1,948	3	70,255
2035	61,495	2,480	832	6,122	267	1,943	3	73,143
2040	62,477	2,375	835	6,111	262	1,929	3	73,991
2045	63,214	2,335	840	6,118	257	1,911	3	74,678
2050	64,530	2,354	848	6,128	253	1,895	3	76,010
2055	66,600	2,447	869	6,135	249	1,879	3	78,182
2060	68,723	2,541	885	6,128	246	1,862	3	80,388
2065	70,333	2,607	893	6,147	242	1,843	3	82,067
2070	71,636	2,651	897	6,200	237	1,824	3	83,448
Low Cost:								
1995	26,789	3,062	461	5,316	295	1,914	4	37,842
2000	28,032	2,967	507	5,444	306	2,068	3	39,325
2005	29,574	2,804	564	5,599	301	2,201	3	41,047
2010	32,856	2,647	625	5,705	286	2,207	3	44,329
2015	38,517	2,470	702	5,846	273	2,231	3	50,043
2020	45,285	2,383	780	5,975	265	2,282	3	56,973
2025	51,397	2,354	838	6,091	268	2,360	3	63,311
2030	55,797	2,270	881	6,125	273	2,438	3	67,788
2035	58,135	2,170	919	6,083	276	2,499	3	70,085
2040	58,597	2,058	941	6,002	279	2,542	3	70,423
2045	59,009	2,011	972	5,934	282	2,588	3	70,798
2050	60,069	2,018	1,007	5,881	288	2,644	3	71,910
2055	61,956	2,087	1,054	5,855	295	2,704	3	73,954
2060	63,958	2,154	1,096	5,860	301	2,761	3	76,134
2065	65,707	2,208	1,129	5,921	307	2,815	3	78,089
2070	67,491	2,259	1,159	6,035	311	2,869	3	80,128

TABLE II.H2.—OASI BENEFICIARIES WITH MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS AS OF DECEMBER 31 BY ALTERNATIVE, CALENDAR YEARS 1945-2070 (Cont.)

[In thousands]

	Retired workers and auxiliaries			Survivors				
Calendar year	Worker	Wife-husband	Child	Widow-widower	Mother-father	Child	Parent	Total
High Cost:								
1995	26,842	3,067	461	5,324	296	1,918	4	37,910
2000	28,453	3,011	503	5,516	306	2,066	3	39,859
2005	30,612	2,971	562	5,645	319	2,095	3	42,206
2010	34,489	2,915	615	5,750	293	1,937	3	46,003
2015	40,871	2,842	674	5,864	268	1,763	3	52,286
2020	48,576	2,844	725	5,937	254	1,643	3	59,982
2025	55,735	2,902	747	6,018	247	1,572	3	67,225
2030	61,585	2,919	752	6,056	237	1,522	3	73,075
2035	65,469	2,901	751	6,082	226	1,479	3	76,910
2040	67,375	2,837	737	6,120	212	1,434	3	78,718
2045	68,878	2,837	721	6,180	199	1,382	3	80,201
2050	70,896	2,897	707	6,226	187	1,330	3	82,247
2055	73,568	3,046	707	6,237	176	1,280	3	85,017
2060	76,199	3,196	705	6,189	166	1,229	3	87,688
2065	78,014	3,297	697	6,135	156	1,179	3	89,482
2070	79,133	3,347	685	6,104	147	1,132	3	90,552

Note: The number of beneficiaries does not include certain uninsured persons, most of whom both attained age 72 before 1968 and have fewer than 3 quarters of coverage, in which case the costs are reimbursed by the general fund of the Treasury. The number of such uninsured persons was 2,448 as of December 31, 1993, and is estimated to be fewer than 500 by the turn of the century. Totals do not necessarily equal the sums of rounded components.

7. Disability Insurance Beneficiaries

The number of DI beneficiaries was projected for each type of benefit separately, by the sex of the worker on whose earnings the benefits are based, and the age of the beneficiary. The number of disabled-worker beneficiaries was projected from the estimated number of such beneficiaries entitled on December 31, 1992, by adding new entitlements and subtracting terminations. The starting number of entitled disabled-worker beneficiaries was estimated by age, sex, and duration of entitlement, from the tabulated number of disabled-worker beneficiaries in current-payment status on December 31, 1992. The number of new entitlements during each year was projected by applying assumed disability incidence rates. Incidence rates by age and sex were applied to the projected disability insured population (excluding those already entitled to disabled-worker benefits) to obtain new entitlements.

The number of terminations was projected by applying assumed termination rates to the disabled-worker population. In the short-range period, the number of terminations was projected by applying assumed termination rates by reason—death, recovery, and all oth-

TABLE II.H2.—OASI BENEFICIARIES WITH MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS AS OF DECEMBER 31 BY ALTERNATIVE, CALENDAR YEARS 1945-2070 (Cont.)

[In thousands]

	Retired workers and auxiliaries			Survivors				
Calendar year	Worker	Wife-husband	Child	Widow-widower	Mother-father	Child	Parent	Total
High Cost:								
1995	26,842	3,067	461	5,324	296	1,918	4	37,910
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2005	30,612	2,971	562	5,645	319	2,095	3	42,206
2010	34,489	2,915	615	5,750	293	1,937	3	46,003
2015	40,871	2,842	674	5,864	268	1,763	3	52,286
2020	48,576	2,844	725	5,937	254	1,643	3	59,982
2025	55,735	2,902	747	6,018	247	1,572	3	67,225
2030	61,585	2,919	752	6,056	237	1,522	3	73,075
2035	65,469	2,901	751	6,082	226	1,479	3	76,910
2040	67,375	2,837	737	6,120	212	1,434	3	78,718
2045	68,878	2,837	721	6,180	199	1,382	3	80,201
2050	70,896	2,897	707	6,226	187	1,330	3	82,247
2055	73,568	3,046	707	6,237	176	1,280	3	85,017
2060	76,199	3,196	705	6,189	166	1,229	3	87,688
2065	78,014	3,297	697	6,135	156	1,179	3	89,482
2070	79,133	3,347	685	6,104	147	1,132	3	90,552

Note: The number of beneficiaries does not include certain uninsured persons, most of whom both attained age 72 before 1968 and have fewer than 3 quarters of coverage, in which case the costs are reimbursed by the general fund of the Treasury. The number of such uninsured persons was 2,448 as of December 31, 1993, and is estimated to be fewer than 500 by the turn of the century. Totals do not necessarily equal the sums of rounded components.

7. Disability Insurance Beneficiaries

The number of DI beneficiaries was projected for each type of benefit separately, by the sex of the worker on whose earnings the benefits are based, and the age of the beneficiary. The number of disabled-worker beneficiaries was projected from the estimated number of such beneficiaries entitled on December 31, 1992, by adding new entitlements and subtracting terminations. The starting number of entitled disabled-worker beneficiaries was estimated by age, sex, and duration of entitlement, from the tabulated number of disabled-worker beneficiaries in current-payment status on December 31, 1992. The number of new entitlements during each year was projected by applying assumed disability incidence rates. Incidence rates by age and sex were applied to the projected disability insured population (excluding those already entitled to disabled-worker benefits) to obtain new entitlements.

The number of terminations was projected by applying assumed termination rates to the disabled-worker population. In the short-range period, the number of terminations was projected by applying assumed termination rates by reason—death, recovery, and all oth-

er—and by age and sex, to the entitled disabled-worker population. In the long-range period, the number of terminations was projected by applying assumed death rates and recovery rates, by age, sex, and duration of entitlement, to the entitled disabled-worker population. This number of terminations was then increased, in both the short-range and long-range periods, by the number of disabled-worker beneficiaries who would be automatically converted to retired-worker beneficiaries upon attainment of the normal retirement age (currently, age 65).

Disability incidence rates declined rapidly from historically high levels for 1974-75 to a level less than half as large by the year 1982. From 1982 through 1986, incidence rates increased steadily, regaining about one-fifth of the decline from the prior period. Between 1986 and 1989, incidence rates remained fairly steady. From 1989 to 1992, incidence rates again increased at a rapid pace, reaching a level about three quarters of the way back to the rates of 1974-75, from the rates for 1982.

Assumed future levels for disability incidence rates are determined in two stages: (1) rates are first projected from recent levels based on past trends and future expectations, as if the increases scheduled in present law for the normal retirement age (NRA) would not occur, and (2) for the year 2000 and later an adjustment is made to reflect the scheduled increase in the NRA; rates for persons aged 60 through 64 are assumed to increase, and rates for ages 65 and 66 are extrapolated.

For the alternative II assumptions, gross incidence rates are projected to continue increasing over the next 10 years due to the growing proportion of insured workers at the higher ages. Gross rates projected under the first stage increase from 1993 levels by about 22 percent over the next 10 years, reaching a level of about 6.0 per thousand persons exposed (defined as the number of persons who are disability insured and not currently entitled to disabled worker benefits).

Further increases in incidence rates over age 60 along with rates assumed for persons aged 66 and 67, due to the scheduled increase in the NRA are reflected in the second stage. These adjustments contribute to the overall rise in the gross disability incidence rate from a level of 4.9 per thousand exposed for 1993 to an ultimate rate

of 7.1 per thousand exposed by the year 2026, at which time the scheduled increase in the NRA will be complete.

For alternative I, the gross disability incidence rate is assumed to decline by about 3 percent over the next 10 years. The 2026 gross incidence rate is assumed to be 5.7 per thousand exposed. For alternative III, the gross disability incidence rate is assumed to increase by about 47 percent over the next 10 years, to a level comparable to the peak experience for 1974-75. The gross incidence rate under alternative III is assumed to reach about 8.6 per thousand exposed by 2026.

In the short-range period, the termination rates were projected by reason—death, recovery, and all other—and by age and sex. For alternative II, the death rates were projected to remain constant, while the rates for recovery and all other terminations were projected to increase from the relatively low levels of 1990-92, by about 90 and 30 percent, respectively. For alternative III, the death rates decline by about 10 percent, while the rates for recovery and all other terminations increase more slowly and to lower levels. For alternative I, the death rates increase by about 10 percent, while the rates for recovery and all other terminations increase more quickly and to higher levels.

In the long-range period, the death rates and recovery rates were projected by age, sex, and duration of entitlement. For alternative II, death rates reach levels in 2068 approximately 14 percent lower for males and approximately 10 percent lower for females than those experienced by disabled-worker beneficiaries during 1977-80, the most recent period for which detailed data are available. The recovery rates are assumed to increase from 1993 levels until 2008, when they attain ultimate levels about 35 percent lower than those experienced during the period 1977-80. Projected increases in recovery rates reflect the estimated effect of the periodic reviews required by provisions of law first enacted in 1980, and amended in 1983, 1984, and 1990.

For alternative I, the death rates in 2068 are assumed to be roughly 10 percent higher for males and approximately 20 percent higher for females than those experienced by disabled-worker beneficiaries during 1977-80, and the recovery rates are assumed to increase from current levels to levels that are 22 percent lower than those of the

same period. For alternative III, the death rates in 2068 are assumed to be about 39 percent lower for both males and females than those experienced during 1977-80, and recovery rates are assumed to be 48 percent lower than those experienced during 1977-80.

In the short-range period, the projected numbers of children under age 18, students aged 18, and disabled children aged 18 and over, who are eligible for benefits as children of disabled-worker beneficiaries, were projected by applying quarterly award and termination rates. Awards to the three categories of child beneficiaries were based on the number of awards to disabled-worker beneficiaries.

In the long-range period, the projected numbers of minor child and student beneficiaries were based on the projected number of children in the population by age. To the number of children were applied factors representing the probability that either of their parents is insured and disabled. The number of disabled children aged 18 and over was projected as a function of the number of disabled-worker beneficiaries and the size of the adult population.

In the short-range period, the number of young-spouse beneficiaries was projected by applying quarterly award and termination rates, where awards were based on the number of awards to child beneficiaries who are either under age 16 or disabled. The number of aged-spouse beneficiaries was also projected by applying quarterly award and termination rates, where awards were based on the number of awards to disabled-worker beneficiaries.

In the long-range period, the number of young-spouse beneficiaries was projected as a proportion of the projected number of child beneficiaries who are either under age 16 or disabled, taking into account projected changes in family size. The number of aged-spouse beneficiaries was projected as a proportion of the number of disabled-worker beneficiaries, based on recent experience and allowing for projected changes in marriage rates.

Table II.H3 shows the projected number of beneficiaries under the DI program by type of benefit.

TABLE II.H3.—DI BENEFICIARIES WITH MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS AS OF DECEMBER 31 BY ALTERNATIVE, CALENDAR YEARS 1960-2070

[In thousands]

Calendar year	Disabled worker	Auxiliaries		Total
		Wife-husband	Child	
Historical data:				
1960	455	77	155	687
1965	988	193	558	1,739
1970	1,493	283	889	2,665
1975	2,489	453	1,411	4,352
1980	2,859	462	1,358	4,678
1985	2,656	306	945	3,907
1986	2,727	301	965	3,993
1987	2,786	291	968	4,045
1988	2,830	281	963	4,074
1989	2,895	271	962	4,129
1990	3,011	266	989	4,266
1991	3,195	266	1,052	4,513
1992	3,468	271	1,151	4,890
1993	3,726	273	1,255	5,254
Intermediate:				
1995	4,301	278	1,427	6,006
2000	5,601	292	1,704	7,596
2005	6,769	315	1,894	8,977
2010	7,713	323	1,837	9,873
2015	8,184	312	1,740	10,236
2020	8,334	310	1,675	10,319
2025	8,599	332	1,663	10,593
2030	8,485	327	1,673	10,486
2035	8,395	321	1,688	10,404
2040	8,493	316	1,697	10,507
2045	8,891	327	1,704	10,921
2050	9,094	333	1,710	11,137
2055	9,217	342	1,722	11,281
2060	9,119	341	1,731	11,191
2065	9,114	339	1,739	11,192
2070	9,205	341	1,746	11,292
Low Cost:				
1995	4,168	268	1,381	5,818
2000	5,006	260	1,537	6,804
2005	6,021	268	1,707	7,995
2010	6,525	253	1,596	8,373
2015	6,713	226	1,496	8,435
2020	6,703	211	1,445	8,360
2025	6,835	219	1,456	8,510
2030	6,708	210	1,494	8,413
2035	6,630	205	1,533	8,368
2040	6,716	202	1,568	8,485
2045	7,043	210	1,608	8,861
2050	7,250	216	1,655	9,120
2055	7,434	224	1,708	9,365
2060	7,507	227	1,760	9,493
2065	7,687	231	1,809	9,726
2070	7,942	237	1,857	10,036

TABLE II.H3.—DI BENEFICIARIES WITH MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS AS OF DECEMBER 31 BY ALTERNATIVE, CALENDAR YEARS 1960-2070 (Cont.)

[In thousands]

Calendar year	Disabled worker	Auxiliaries		Total
		Wife-husband	Child	
High Cost:				
1995	4,433	287	1,472	6,192
2000	6,372	336	1,930	8,638
2005	7,521	373	2,082	9,976
2010	8,920	413	2,072	11,405
2015	9,692	421	1,961	12,074
2020	10,022	435	1,860	12,318
2025	10,452	471	1,806	12,729
2030	10,384	469	1,773	12,626
2035	10,314	460	1,751	12,524
2040	10,441	449	1,730	12,620
2045	10,917	460	1,696	13,073
2050	11,097	463	1,657	13,217
2055	11,113	471	1,621	13,206
2060	10,752	459	1,586	12,797
2065	10,452	445	1,551	12,448
2070	10,281	436	1,518	12,236

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

8. Average Benefits

Average benefits were projected by type of benefit based on recent historical averages, projected average Primary Insurance Amounts (PIAs), and projected ratios of average benefits to average PIAs. Average PIAs were calculated from projected distributions of beneficiaries by duration from year of award, average awarded PIAs, and increases thereto since the year of award, reflecting automatic benefit increases, recomputations to reflect additional covered earnings, and other factors. Average awarded PIAs were calculated from projected earnings histories, which were developed from the actual earnings histories associated with a sample of awards made in 1992. The 1992 sample replaced a 1988 sample, which was used for the 1993 report. This change had a significant effect on the projected level of average benefits as discussed earlier in section II.F2.

For several types of benefits—retired-worker, aged-spouse, and aged-widow(er) benefits—the percentage of the PIA that is payable depends on the age at initial entitlement to benefits. Projected ratios

of average benefits to average PIAs for these types of benefits were based on projections of age distributions at initial entitlement.

9. Benefit Payments

For each type of benefit, benefit payments were calculated as the product of a number of beneficiaries and a corresponding average monthly benefit. In the short-range period, benefit payments were calculated on a quarterly basis. In the long-range period, all benefit payments were calculated on an annual basis, using the number of beneficiaries on December 31. These amounts were adjusted to include retroactive payments to newly awarded beneficiaries, and other amounts not reflected in the regular monthly benefit payments.

Lump-sum death payments were calculated as the product of (1) the number of such payments, which was projected on the basis of the assumed death rates, the projected fully insured population, and the estimated percentage of the fully insured population that would qualify for benefits, and (2) the amount of the lump-sum death payment, which is $255 (unindexed in future years).

10. Administrative Expenses

The projection of administrative expenses through 2003 was based on assumed increases in average wages, increases in the CPI, and increases in the number of beneficiaries. For years after 2003, administrative expenses are assumed to increase because of increases in the number of beneficiaries and increases in the average wage which will more than offset assumed improvements in administrative productivity.

11. Railroad Retirement Financial Interchange

Railroad workers are covered under a separate multi-tiered plan, the first tier being very similar to OASDI coverage. An annual financial interchange between the Railroad Retirement fund and the OASI and DI funds is made reflecting the difference between (1) the amount of OASDI benefits that would be paid to railroad workers and their families if railroad employment had been covered under the OASDI program and (2) the amount of OASDI payroll tax that would be

received from railroad workers if they were covered directly under the OASDI program.

The effect of the financial interchange with the Railroad Retirement program was evaluated on the basis of trends similar to those used in estimating the cost of OASDI benefits. The resulting effect was annual short-range costs of about $3-5 billion and a long-range summarized cost of 0.04 percent of taxable payroll to the OASDI program.

12. Benefits to Uninsured Persons

The law provides for special monthly cash payments to certain uninsured persons who attained age 72 before 1968 or who have 3 quarters of coverage for each year after 1966 and before the year of attainment of age 72. The number of such uninsured persons was projected based on an extrapolation of the historical survival rate of the members of that group. The benefit payable to these uninsured persons is a fixed amount which increases by the percentage benefit increase applicable to regular OASDI benefits. These payments are made from the OASI Trust Fund, which is then reimbursed from the general fund of the Treasury for the costs (including administrative expenses and interest) associated with providing payments to those persons with fewer than 3 quarters of coverage. The nonreimbursable payments are assumed to be insignificant after 2000. Neither the reimbursable payments nor the associated reimbursements are reflected in the cost rates or the income rates. These amounts are reflected, however, in tables which show trust fund operations.

13. Military-Service Transfers

As a result of the 1983 amendments, the OASI and DI Trust Funds received lump-sum payments, in May 1983, for the cost (including administrative expenses) of providing additional benefit payments resulting from noncontributory wage credits for military service performed prior to 1957. Adjustments to the payments were made in 1985 and 1990, and additional adjustments will be made in 1995 and every fifth year thereafter. The adjustments for 1995 were estimated based on the change in interest rates since the determination of the adjustments in 1990. No adjustments after 1995 would be due unless actual interest rates are different from those assumed, or changes

are made in the methods used to determine the military-service transfers.

14. Income From Taxation of Benefits

Under present law, the OASI and DI Trust Funds are credited with the additional income taxes attributable to the taxation of the first 50 percent of OASDI benefit payments. (The remainder of the income taxes attributable to the taxation of up to 85 percent of OASDI benefit payments is credited to the HI Trust Fund.) For the short-range period, income to the trust funds from such taxation was estimated by applying the following two factors to total OASI and DI benefit payments: (1) the percentage of benefit payments (limited to 50 percent) that is taxable, and (2) the average tax rate applicable to those benefits. For the long-range period, income to the trust funds from such taxation was estimated by applying projected ratios of such income to total OASI and DI benefit payments. Because the income thresholds used for benefit taxation are, by law, constant in the future, their values in relation to future income and benefit levels will decline. Thus, ratios of income from taxation of benefits to the amount of benefits are projected to increase. These ratios were projected reflecting the results of a model developed by the Office of Tax Analysis, Department of the Treasury, relating OASDI benefit payments to total personal income for a sample of recent tax returns.

III. APPENDICES

A. ACTUARIAL ESTIMATES FOR THE OASDI AND HI PROGRAMS, COMBINED

In this appendix, long-range actuarial estimates for the OASDI and Hospital Insurance (HI) programs are combined to facilitate analysis of the adequacy of the combined income and assets of the trust funds relative to their combined expenditures. Combining cost and income rates as percentages of taxable payroll requires a note of caution. The taxable payrolls for the HI program are larger than those estimated for the OASDI program because (1) a larger maximum taxable amount was established for the HI program in 1991, with the maximum being eliminated altogether for the HI program in 1994, (2) a larger proportion of Federal, State, and local government employees have their wages covered under the HI program, and (3) the earnings of railroad workers are included in the HI taxable payroll but not in the OASDI taxable payroll (railroad contributions for the equivalent of OASDI benefits are accounted for on a net interchange that occurs annually between the OASDI and Railroad Retirement programs). As a result, the HI taxable payroll is about 20 percent larger than the OASDI taxable payroll throughout the long-range period. Nonetheless, combined OASDI and HI rates shown in this appendix are computed by adding the separately derived rates for the programs. The resulting combined rates may be interpreted as those applicable to the taxable payroll in the amount of the OASDI payroll, with the separate HI rates being additionally applicable to the excess of the HI payroll over the OASDI payroll.

Long-range estimates are subject to much uncertainty and should not be considered precise forecasts. Instead they should be considered as indicative of the general trend and range of costs that could reasonably be expected to occur. The emphasis in this appendix on combined operations, while significant, should not obscure the analysis of the financial status of the individual trust funds, which are legally separate and cannot be commingled. In addition, the factors which determine the costs of the OASI, DI, and HI programs differ substantially.

As with the OASI and DI Trust Funds, income to the HI Trust Fund comes primarily from contributions paid by employees, employers, and self-employed persons. The combined OASDI and HI contribution

rate for employees and their employers is often referred to as the FICA tax, because it is authorized by the Federal Insurance Contributions Act. Contribution rates for the OASDI and HI programs are shown in table III.A1.

TABLE III.A1.—CONTRIBUTION RATES FOR THE OASDI AND HI PROGRAMS

(In percent)

Calendar years	Employees and employers, each			Self employed		
	OASDI	HI	Combined	OASDI	HI	Combined
1966	3.85	0.35	4.20	5.80	0.35	6.15
1967	3.90	.50	4.40	5.90	.50	6.40
1968	3.80	.60	4.40	5.80	.60	6.40
1969-70	4.20	.60	4.80	6.30	.60	6.90
1971-72	4.60	.60	5.20	6.90	.60	7.50
1973	4.85	1.00	5.85	7.00	1.00	8.00
1974-77	4.95	.90	5.85	7.00	.90	7.90
1978	5.05	1.00	6.05	7.10	1.00	8.10
1979-80	5.08	1.05	6.13	7.05	1.05	8.10
1981	5.35	1.30	6.65	8.00	1.30	9.30
1982-83	5.40	1.30	6.70	8.05	1.30	9.35
1984[1]	5.70	1.30	7.00	11.40	2.60	14.00
1985[1]	5.70	1.35	7.05	11.40	2.70	14.10
1986-87[1]	5.70	1.45	7.15	11.40	2.90	14.30
1988-89[1]	6.06	1.45	7.51	12.12	2.90	15.02
1990 and later	6.20	1.45	7.65	12.40	2.90	15.30

[1]See footnote 1 under table II.B1 in the section entitled "Description of the Trust Funds" for a description of tax credits allowed against the combined OASDI and HI taxes on net earnings from self-employment in 1984-89.

Table III.A2 shows estimated annual income rates and cost rates for the OASDI program, the HI program, and the combined OASDI and HI programs, based on the low cost, intermediate, and high cost sets of assumptions (alternatives I, II, and III) described earlier in this report. Income rates exclude interest earned on trust fund assets. Table III.A2 also shows the difference between income rates and cost rates, called balances. Estimates shown for the combined trust funds are theoretical because no authority currently exists for transferring assets from one trust fund to another.

Under all three sets of assumptions, combined OASDI and HI cost rates are projected to rise above current levels, with the sharpest increase occurring during the period 2010-2030. Under the high cost set of assumptions, alternative III, annual deficits are projected to occur within the next 3 years, and to continue for the remainder of the 75-year projection period. Cost rates are projected to rise to nearly three and one-half times their current level by the end of the projection period. Under the intermediate assumptions, alternative II,

annual deficits begin by the year 2000, with cost rates doubling by the end of the projection period. Under the low cost assumptions, alternative I, cost rates are projected to increase by about 25 percent, with annual deficits beginning by the year 2020.

TABLE III.A2.—COMPARISON OF ESTIMATED INCOME RATES AND COST RATES[1] FOR OASDI AND HI BY ALTERNATIVE, CALENDAR YEARS 1994-2070

[As a percentage of taxable payroll[1]]

Calendar year	OASDI			HI			Combined		
	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance
Intermediate:									
1994....	12.63	11.64	0.98	3.02	3.23	−0.21	15.65	14.87	0.78
1995....	12.60	11.67	.93	3.02	3.32	−.30	15.63	15.00	.63
1996....	12.63	11.71	.92	3.02	3.44	−.41	15.66	15.15	.51
1997....	12.63	11.72	.92	3.03	3.54	−.51	15.66	15.25	.41
1998....	12.64	11.74	.90	3.03	3.66	−.63	15.66	15.40	.26
1999....	12.64	11.75	.88	3.03	3.79	−.76	15.66	15.54	.12
2000....	12.64	11.77	.87	3.03	3.92	−.89	15.67	15.68	−.02
2001....	12.64	11.80	.84	3.03	4.04	−1.01	15.67	15.85	−.17
2002....	12.64	11.83	.81	3.03	4.17	−1.14	15.67	16.00	−.33
2003....	12.64	11.86	.78	3.04	4.29	−1.26	15.68	16.15	−.47
2005....	12.67	11.89	.78	3.05	4.52	−1.48	15.72	16.41	−.69
2010....	12.75	12.27	.48	3.08	5.03	−1.95	15.84	17.30	−1.47
2015....	12.85	13.42	−.56	3.13	5.80	−2.67	15.98	19.22	−3.23
2020....	12.96	14.96	−2.01	3.19	6.63	−3.44	16.14	21.59	−5.45
2025....	13.05	16.36	−3.31	3.24	7.56	−4.32	16.29	23.92	−7.63
2030....	13.13	17.22	−4.10	3.28	8.46	−5.18	16.41	25.69	−9.28
2035....	13.17	17.52	−4.35	3.31	9.15	−5.84	16.48	26.67	−10.19
2040....	13.19	17.42	−4.23	3.32	9.55	−6.23	16.51	26.97	−10.47
2045....	13.20	17.42	−4.22	3.33	9.80	−6.47	16.53	27.22	−10.69
2050....	13.23	17.64	−4.41	3.34	9.99	−6.65	16.57	27.63	−11.06
2055....	13.26	18.07	−4.81	3.36	10.24	−6.88	16.63	28.31	−11.69
2060....	13.30	18.48	−5.18	3.38	10.57	−7.19	16.68	29.05	−12.37
2065....	13.32	18.77	−5.45	3.39	10.96	−7.57	16.71	29.73	−13.02
2070....	13.34	19.00	−5.67	3.41	11.35	−7.94	16.74	30.35	−13.61
Low Cost:									
1994....	12.62	11.50	1.13	3.02	3.20	−.17	15.65	14.69	.95
1995....	12.58	11.34	1.24	3.02	3.23	−.21	15.60	14.57	1.03
1996....	12.62	11.18	1.44	3.02	3.28	−.26	15.64	14.46	1.18
1997....	12.62	11.02	1.60	3.02	3.32	−.30	15.64	14.34	1.30
1998....	12.62	10.88	1.74	3.02	3.37	−.36	15.64	14.25	1.39
1999....	12.62	10.75	1.87	3.02	3.44	−.42	15.64	14.18	1.45
2000....	12.62	10.64	1.98	3.02	3.50	−.48	15.64	14.13	1.50
2001....	12.62	10.54	2.07	3.02	3.56	−.54	15.64	14.10	1.53
2002....	12.62	10.47	2.15	3.02	3.61	−.59	15.64	14.08	1.56
2003....	12.62	10.40	2.21	3.02	3.66	−.64	15.64	14.06	1.58
2005....	12.64	10.29	2.35	3.03	3.74	−.71	15.67	14.02	1.64
2010....	12.70	10.34	2.36	3.06	3.84	−.78	15.75	14.18	1.57
2015....	12.78	11.18	1.59	3.09	4.08	−.99	15.87	15.26	.60
2020....	12.85	12.33	.53	3.14	4.27	−1.13	15.99	16.59	−.60
2025....	12.92	13.26	−.33	3.18	4.46	−1.29	16.10	17.72	−1.62
2030....	12.97	13.67	−.70	3.20	4.69	−1.49	16.17	18.36	−2.19
2035....	12.99	13.57	−.58	3.22	4.86	−1.64	16.21	18.43	−2.22
2040....	12.99	13.13	−.14	3.22	4.97	−1.75	16.21	18.10	−1.89
2045....	12.99	12.79	.20	3.22	5.08	−1.86	16.21	17.87	−1.66
2050....	12.99	12.63	.36	3.22	5.18	−1.96	16.21	17.81	−1.60
2055....	13.00	12.62	.38	3.23	5.30	−2.07	16.23	17.92	−1.70
2060....	13.01	12.61	.40	3.23	5.48	−2.24	16.24	18.09	−1.85
2065....	13.01	12.54	.47	3.24	5.68	−2.45	16.25	18.22	−1.97
2070....	13.02	12.49	.52	3.24	5.88	−2.65	16.25	18.38	−2.12

TABLE III.A2.—COMPARISON OF ESTIMATED INCOME RATES AND COST RATES[1] FOR OASDI AND HI BY ALTERNATIVE, CALENDAR YEARS 1994-2070 (Cont.)

[As a percentage of taxable payroll[1]]

Calendar year	OASDI			HI			Combined		
	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance
High Cost:									
1994....	12.63	11.73	0.89	3.02	3.25	–0.22	15.65	14.98	0.67
1995....	12.65	12.13	.52	3.03	3.43	–.40	15.68	15.56	.12
1996....	12.64	12.22	.42	3.03	3.59	–.56	15.67	15.81	–.14
1997....	12.64	12.38	.27	3.03	3.71	–.68	15.68	16.09	–.42
1998....	12.66	13.03	–.37	3.04	3.96	–.92	15.70	16.99	–1.29
1999....	12.67	13.22	–.56	3.04	4.16	–1.12	15.70	17.38	–1.67
2000....	12.67	13.30	–.63	3.04	4.35	–1.31	15.71	17.65	–1.94
2001....	12.67	13.42	–.75	3.05	4.56	–1.52	15.72	17.98	–2.26
2002....	12.67	13.56	–.89	3.05	4.78	–1.73	15.72	18.35	–2.62
2003....	12.68	13.70	–1.02	3.05	5.00	–1.95	15.73	18.70	–2.97
2005....	12.72	13.77	–1.05	3.07	5.45	–2.38	15.79	19.22	–3.43
2010....	12.82	14.15	–1.34	3.11	6.59	–3.48	15.93	20.74	–4.82
2015....	12.93	15.34	–2.41	3.17	8.30	–5.13	16.10	23.64	–7.54
2020....	13.05	17.20	–4.15	3.23	10.42	–7.18	16.29	27.62	–11.33
2025....	13.18	19.09	–5.91	3.30	12.91	–9.61	16.48	32.00	–15.52
2030....	13.28	20.59	–7.31	3.36	15.40	–12.04	16.64	35.99	–19.35
2035....	13.37	21.59	–8.23	3.40	17.34	–13.94	16.77	38.93	–22.16
2040....	13.42	22.20	–8.78	3.44	18.50	–15.06	16.86	40.70	–23.84
2045....	13.47	22.95	–9.48	3.47	19.02	–15.56	16.94	41.98	–25.04
2050....	13.54	23.98	–10.44	3.50	19.41	–15.90	17.04	43.39	–26.35
2055....	13.62	25.30	–11.68	3.55	19.86	–16.31	17.17	45.15	–27.99
2060....	13.70	26.61	–12.91	3.59	20.52	–16.93	17.29	47.13	–29.84
2065....	13.77	27.72	–13.95	3.63	21.29	–17.66	17.40	49.01	–31.61
2070....	13.83	28.72	–14.89	3.66	22.04	–18.38	17.49	50.77	–33.27

[1]The taxable payroll for HI is significantly larger than the taxable payroll for OASDI because the HI taxable maximum amount was eliminated beginning 1994, and because HI covers all Federal civilian employees, including those hired before 1984, all State and local government employees hired after April 1, 1986, and railroad employees. Combined OASDI and HI rates as a percent of taxable payroll are computed as the sum of the rates for the separate programs.

Notes:

1. The income rate excludes interest income and certain transfers from the general fund of the Treasury.
2. Totals do not necessarily equal the sums of rounded components.

Table III.A3 shows the estimates of summarized OASDI and HI income rates, cost rates and balances for various time periods, based on all three sets of assumptions. Values are summarized over the three 25-year subperiods (excluding the beginning fund balances and the cost of reaching and maintaining ending fund targets) as well as the 25-year, 50-year, and 75-year valuation periods (for which beginning fund balances are included in the summarized income rates, and the costs of reaching and maintaining an ending fund balance equal to 100 percent of annual expenditures by the end of the period are included in the summarized cost rates). Estimates shown for the combined trust funds are theoretical because no authority currently exists for transferring assets from one trust fund to another.

Under the high cost alternative III, the combined OASDI and HI system is projected to experience large deficits during the 25-year,

50-year, and 75-year valuation periods (including beginning trust fund balances and the cost of ending fund targets). Deficits are projected to occur during each 25-year subperiod of the 75-year projection period (excluding beginning trust fund balances and the cost of ending fund targets). Under intermediate alternative II assumptions, deficits of smaller magnitude than those for the high cost alternative III are projected to occur for each of the three 25-year subperiods and for each of the three valuation periods. Under the low cost alternative I, the combined OASDI and HI system is projected to show positive balances for the first 25-year subperiod and the 25-year valuation period, and a small positive balance for the 50-year valuation period. Relatively small deficits are projected for the 75-year valuation period and for the second and third 25-year subperiods.

TABLE III.A3.—COMPARISON OF SUMMARIZED INCOME RATES AND COST RATES[1] FOR OASDI AND HI BY ALTERNATIVE, CALENDAR YEARS 1994-2068

[As a percentage of taxable payroll[1]]

Calendar year period	OASDI			HI			Combined		
	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance
Intermediate:									
25-year subperiods:[2]									
1994-2018	12.70	12.32	0.39	3.07	4.60	−1.53	15.77	16.91	−1.14
2019-2043	13.10	16.78	−3.69	3.27	8.32	−5.05	16.36	25.11	−8.74
2044-2068	13.26	18.14	−4.88	3.36	10.33	−6.97	16.62	28.47	−11.85
Valuation periods:[3]									
25-years:									
1994-2018	13.35	12.85	.50	3.25	4.83	−1.59	16.60	17.68	−1.09
50-years:									
1994-2043	13.24	14.53	−1.29	3.26	6.38	−3.12	16.50	20.91	−4.41
75-years:									
1994-2068	13.24	15.37	−2.13	3.28	7.33	−4.05	16.53	22.70	−6.17
Low Cost:									
25-year subperiods:[2]									
1994-2018	12.66	10.80	1.86	3.05	3.70	−.66	15.71	14.51	1.20
2019-2043	12.94	13.24	−.29	3.19	4.67	−1.48	16.13	17.90	−1.77
2044-2068	13.00	12.66	.33	3.23	5.36	−2.13	16.22	18.02	−1.80
Valuation periods:[3]									
25-years:									
1994-2018	13.27	11.25	2.03	3.22	3.86	−.64	16.49	15.11	1.38
50-years:									
1994-2043	13.13	12.08	1.05	3.21	4.21	−1.00	16.33	16.29	.05
75-years:									
1994-2068	13.09	12.19	.90	3.21	4.50	−1.29	16.31	16.69	−.39
High Cost:									
25-year subperiods:[2]									
1994-2018	12.75	13.87	−1.13	3.09	5.77	−2.68	15.84	19.64	−3.81
2019-2043	13.26	20.29	−7.03	3.35	15.04	−11.69	16.61	35.33	−18.72
2044-2068	13.62	25.42	−11.80	3.55	20.05	−16.50	17.17	45.47	−28.30
Valuation periods:[3]									
25-years:									
1994-2018	13.43	14.49	−1.06	3.27	6.13	−2.86	16.70	20.62	−3.93
50-years:									
1994-2043	13.35	17.03	−3.67	3.31	10.13	−6.83	16.66	27.16	−10.50
75-years:									
1994-2068	13.42	18.99	−5.57	3.37	12.47	−9.10	16.78	31.46	−14.68

[1]The taxable payroll for HI is significantly larger than the taxable payroll for OASDI because the HI taxable maximum amount was eliminated beginning 1994, and because HI covers all Federal civilian employees, including those hired before 1984, all State and local government employees hired after April 1, 1986, and railroad employees. Combined OASDI and HI rates are computed as the sum of the separately derived rates for each program.

[2]For 25-year subperiods, income rates do not include beginning trust fund balances and cost rates do not include the cost of reaching ending fund targets.

[3]For valuation periods, income rates include beginning trust fund balances and cost rates include an ending fund target equal to 100 percent of annual expenditures by the end of the period.

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

B. LONG-RANGE ESTIMATES OF SOCIAL SECURITY TRUST FUND OPERATIONS IN DOLLARS

This appendix presents long-range projections in dollars of the operations of the combined OASI and DI Trust Funds and in some cases the HI Trust Fund. It provides the means to track the progress of the funds during the projection period. Meaningful comparison of current dollar values over long periods of time can be difficult because of the tendency toward inflation. Some means of removing inflation is thus generally desirable. Several economic series, or "indices," are provided to allow current dollars to be adjusted for changes in prices, wages, and certain other aspects of economic growth during the projection period.

The selection of a particular index for adjustment of current dollars depends upon the analyst's decision as to which index provides the most useful standard for adjusting dollar amounts, over time, to create values that are appropriately comparable. Table III.B1 presents five such indices for adjustment.

One of the most common forms of standardization is based on some measure of change in the prices of consumer goods. One such price index is the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W, hereafter referred to as "CPI"), which is published by the Bureau of Labor Statistics, Department of Labor. This is the index used to determine annual increases in OASDI monthly benefits payable after the year of initial eligibility. The CPI is assumed to increase ultimately at annual rates of 3.0, 4.0, and 5.0 percent for the low cost, intermediate, and high cost sets of assumptions (alternatives I, II, and III, respectively). Constant-dollar values (those adjusted by the CPI) are provided in table III.B2.

Another type of standardization combines the effects of price inflation with real-wage growth. The wage index presented here is the "SSA average wage index," as defined in section 215(i)(1)(G) of the Social Security Act. This index is used to make annual adjustments to many earnings-related quantities embodied in the Social Security Act, such as the contribution and benefit base. The average annual wage is assumed to increase ultimately by 4.5, 5.0, and 5.5 percent under the low cost, intermediate, and high cost alternatives (I, II, and III), respectively.

The taxable payroll index adjusts for the effects of changes in the number of workers and changes in the proportion of earnings that are taxable, as well as for the effects of price inflation and real-wage growth. The OASDI taxable payroll consists of all earnings subject to OASDI taxation, adjusted for the lower effective tax rate on multiple-employer "excess wages," and including deemed wage credits for military service.

The gross domestic product (GDP) index adjusts for the growth in the aggregate amount of goods and services produced in the United States. Values adjusted by GDP (see appendix III.C) indicate their relative share of the total output of the economy. No explicit assumptions are made about growth in taxable payroll or GDP. These series are computed reflecting the other more basic economic and demographic assumptions, as discussed in section II.H.

Discounting with interest is another way of adjusting current dollars. The series of interest-rate factors included here is based on the average of the assumed annual interest rates for special public-debt obligations issuable to the trust funds. This series is slightly different from the interest rates used to create summarized values elsewhere in this report, where the actual yield on currently held trust fund assets is used for each year. Ultimate nominal interest rates compounded semiannually, are assumed to be approximately 6.0, 6.3, and 6.5 percent for the low cost, intermediate, and high cost alternatives (I, II, and III), respectively.

TABLE III.B1.—SELECTED ECONOMIC VARIABLES BY ALTERNATIVE, CALENDAR YEARS 1993-2070

[GDP and taxable payroll in billions]

Calendar year	Adjusted CPI[1]	SSA average wage index[2]	Taxable payroll [3]	Gross domestic product	Compound interest-rate factor[4]
Intermediate:					
1993	97.39	$23,475.93	$2,653	$6,374	0.9420
1994	100.00	24,089.81	2,790	6,726	1.0000
1995	103.17	25,195.59	2,934	7,107	1.0608
1996	106.55	26,245.92	3,082	7,499	1.1254
1997	110.13	27,351.73	3,249	7,902	1.1947
1998	113.97	28,516.08	3,418	8,322	1.2689
1999	118.15	29,794.22	3,603	8,784	1.3491
2000	122.75	31,185.37	3,805	9,289	1.4347
2001	127.67	32,655.64	4,018	9,832	1.5267
2002	132.77	34,248.36	4,247	10,408	1.6256
2003	138.09	35,962.83	4,492	11,025	1.7309
2004	143.61	37,760.97	4,756	11,692	1.8428
2005	149.36	39,649.02	5,039	12,396	1.9606
2010	181.71	50,603.31	6,667	16,499	2.6726
2015	221.08	64,584.08	8,689	21,665	3.6432
2020	268.98	82,427.47	11,188	28,156	4.9662
2025	327.26	105,200.65	14,340	36,437	6.7697
2030	398.16	134,265.66	18,446	47,321	9.2281
2035	484.42	171,360.78	23,816	61,687	12.5793
2040	589.37	218,704.59	30,719	80,332	17.1475
2045	717.06	279,128.66	39,460	104,183	23.3747
2050	872.41	356,246.75	50,506	134,630	31.8633
2055	1,061.42	454,671.16	64,582	173,805	43.4346
2060	1,291.38	580,288.44	82,654	224,580	59.2081
2065	1,571.16	740,611.44	105,849	290,371	80.7097
2070	1,911.56	945,228.69	135,519	375,336	110.0198
Low Cost:					
1993	97.62	23,560.37	2,655	6,379	.9420
1994	100.00	24,231.28	2,816	6,787	1.0000
1995	102.81	25,430.46	2,992	7,224	1.0605
1996	105.89	26,625.74	3,176	7,686	1.1238
1997	109.07	27,859.32	3,379	8,159	1.1915
1998	112.34	29,140.24	3,588	8,647	1.2655
1999	115.71	30,470.77	3,804	9,152	1.3442
2000	119.18	31,847.46	4,026	9,671	1.4278
2001	122.76	33,265.95	4,256	10,207	1.5166
2002	126.43	34,777.40	4,494	10,764	1.6102
2003	130.23	36,379.76	4,747	11,351	1.7083
2004	134.14	38,016.85	5,006	11,972	1.8123
2005	138.16	39,727.61	5,288	12,646	1.9227
2010	160.17	49,507.83	6,890	16,497	2.5839
2015	185.68	61,695.76	8,827	21,196	3.4726
2020	215.25	76,884.14	11,201	27,015	4.6669
2025	249.53	95,811.63	14,207	34,431	6.2719
2030	289.28	119,398.72	18,127	44,143	8.4289
2035	335.35	148,792.53	23,270	56,942	11.3278
2040	388.77	185,422.56	29,902	73,521	15.2236
2045	450.69	231,070.25	38,333	94,705	20.4592
2050	522.47	287,955.56	49,080	121,839	27.4955
2055	605.69	358,845.03	62,861	156,798	36.9516
2060	702.16	447,186.19	80,630	202,088	49.6599
2065	813.99	557,275.38	103,510	260,678	66.7388
2070	943.64	694,466.50	132,738	335,891	89.6913
High Cost:					
1993	96.74	23,445.71	2,651	6,367	.9420
1994	100.00	24,053.06	2,778	6,697	1.0000
1995	103.97	25,033.93	2,867	6,885	1.0624
1996	109.59	26,444.29	3,030	7,413	1.1308
1997	116.63	28,037.32	3,236	7,942	1.2121
1998	122.37	29,102.54	3,349	8,139	1.3100
1999	128.45	30,727.01	3,537	8,748	1.4179
2000	134.87	32,286.94	3,772	9,389	1.5298

TABLE III.B1.—SELECTED ECONOMIC VARIABLES BY ALTERNATIVE, CALENDAR YEARS 1993-2070 (Cont.)

[GDP and taxable payroll in billions]

Calendar year	Adjusted CPI[1]	SSA average wage index[2]	Taxable payroll[3]	Gross domestic product	Compound interest-rate factor[4]
2001	141.61	33,890.07	4,009	10,003	1.6402
2002	148.69	35,671.13	4,248	10,630	1.7560
2003	156.13	37,625.09	4,501	11,303	1.8769
2004	163.94	39,694.47	4,781	12,048	2.0023
2005	172.13	41,877.67	5,079	12,823	2.1339
2010	219.69	54,732.43	6,830	17,430	2.9339
2015	280.38	71,533.10	9,070	23,433	4.0339
2020	357.85	93,490.90	11,866	31,091	5.5463
2025	456.72	122,188.87	15,409	40,958	7.6257
2030	582.90	159,695.97	20,021	53,989	10.4848
2035	743.94	208,716.25	26,032	71,213	14.4157
2040	949.48	272,783.78	33,721	93,581	19.8204
2045	1,211.81	356,517.50	43,330	121,985	27.2514
2050	1,546.61	465,954.13	55,366	158,121	37.4685
2055	1,973.90	608,983.38	70,557	204,419	51.5161
2060	2,519.26	795,916.94	89,916	264,270	70.8304
2065	3,215.28	1,040,231.63	114,699	341,979	97.3859
2070	4,103.61	1,359,541.13	146,051	441,747	133.8976

[1]The CPI used to adjust OASDI benefits is the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI), as defined by the Bureau of Labor Statistics, Department of Labor. The values shown are adjusted by dividing the calendar-year annual average CPI by the analogous value for 1994, and multiplying the result by 100, thereby initializing the CPI at 100 for 1994.

[2]The "SSA average wage index" is defined in section 215(i)(1)(G) of the Social Security Act; it is used in the calculations of initial benefits and the automatic adjustment of the contribution and benefit base and other wage-indexed program amounts.

[3]Taxable payroll consists of total earnings subject to OASDI contribution rates, adjusted to include deemed wages based on military service and to reflect the lower effective contribution rates (compared to the combined employee-employer rate) which apply to multiple-employer "excess wages."

[4]The compound interest-rate factor is based on the average of the assumed annual interest rates for special public-debt obligations issuable to the trust funds in the 12 months of the year, under each alternative.

Table III.B2 shows estimated operations of the combined OASI and DI Trust Funds in constant 1994 dollars (i.e., adjusted by the CPI indexing series as discussed above). Items included in the table are: income excluding interest, interest income, total income, total outgo, and assets at the end of the year. Income excluding interest consists of payroll-tax contributions, income from taxation of benefits, and miscellaneous reimbursements from the general fund of the Treasury. Outgo consists of benefit payments, administrative expenses, net transfers from the OASI and DI Trust Funds to the Railroad Retirement program under the financial-interchange provisions, and payments for vocational rehabilitation services for disabled beneficiaries. These estimates are based on the low cost, intermediate, and high cost sets of assumptions (alternatives I, II, and III) described earlier in this report.

TABLE III.B2.—ESTIMATED OPERATIONS OF THE COMBINED OASI AND DI TRUST FUNDS IN CONSTANT 1994 DOLLARS[1] BY ALTERNATIVE, CALENDAR YEARS 1994-2070

[In billions]

Calendar year	Income excluding interest	Interest income	Total income	Outgo	Assets at end of year
Intermediate:					
1994	$347.0	$30.4	$377.4	$324.8	$430.9
1995	357.5	32.2	389.7	332.0	475.4
1996	365.4	34.2	399.6	338.9	521.0
1997	372.1	36.3	408.4	345.6	566.8
1998	378.1	38.5	416.6	352.1	612.3
1999	384.4	40.7	425.1	358.5	657.1
2000	390.9	42.9	433.8	364.8	701.5
2001	397.3	45.2	442.5	371.5	745.5
2002	403.5	47.7	451.2	378.6	789.5
2003	410.4	50.1	460.6	385.9	833.8
2005	426.6	55.3	481.9	401.2	925.9
2010	467.0	68.7	535.7	450.2	1,159.8
2015	504.1	76.6	580.8	527.3	1,273.6
2020	537.8	68.2	606.1	622.3	1,106.4
2025[2]	570.9	38.2	609.0	716.9	578.8
Low Cost:					
1994	350.0	30.5	380.5	323.7	435.1
1995	364.9	32.8	397.7	329.9	491.0
1996	378.4	35.5	413.9	335.4	555.2
1997	390.2	38.9	429.1	341.4	626.7
1998	402.0	42.9	444.9	347.4	706.0
1999	413.6	47.3	460.9	353.3	793.1
2000	425.3	52.2	477.5	359.3	888.2
2001	436.7	57.7	494.4	365.5	991.1
2002	447.5	63.5	511.0	372.1	1,101.1
2003	458.9	69.6	528.5	379.1	1,218.4
2005	482.7	83.6	566.2	393.7	1,476.6
2010	545.2	126.2	671.3	444.9	2,253.0
2015	606.3	174.8	781.1	531.6	3,089.8
2020	667.7	218.8	886.5	641.4	3,835.0
2025	734.5	254.3	988.7	754.7	4,432.9
2030	811.3	283.2	1,094.5	856.4	4,927.8
2035	899.8	313.5	1,213.3	941.5	5,457.5
2040	997.3	354.1	1,351.4	1,010.1	6,180.7
2045	1,102.7	410.8	1,513.5	1,088.1	7,182.1
2050	1,218.2	483.5	1,701.7	1,186.6	8,459.2
2055	1,346.9	571.2	1,918.1	1,310.3	9,991.3
2060	1,491.2	674.3	2,165.5	1,448.2	11,791.9
2065	1,651.8	797.0	2,448.8	1,594.5	13,939.3
2070	1,827.6	943.9	2,771.5	1,757.3	16,507.7
High Cost:					
1994	345.7	30.4	376.0	326.0	428.3
1995	348.4	31.7	380.1	334.5	457.6
1996	349.1	32.7	381.7	337.8	478.0
1997	350.4	33.8	384.2	343.5	489.9
1998	346.2	34.8	381.0	356.8	491.2
1999	347.4	34.7	382.1	364.1	486.0
2000	353.4	34.0	387.4	372.0	478.2
2001	358.0	33.1	391.1	379.9	466.6
2002	361.2	31.8	393.1	387.5	450.0
2003	364.6	30.2	394.8	395.0	428.4
2005	374.3	25.8	400.1	406.3	379.0
2010[2]	397.6	13.9	411.5	440.0	212.8

[1]The adjustment from current to constant dollars is by the CPI indexing series shown in table III.B1.

[2]Estimates for later years are not shown because the combined OASI and DI Trust Funds are estimated to become exhausted in 2029 under alternative II and in 2014 under alternative III.

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

Figure III.B1 provides a comparison of outgo with total annual income (including interest) and annual income excluding interest, for the OASDI program under intermediate assumptions. All values are expressed in constant dollars, as shown in table III.B2. The difference between the income values for each year is equal to the trust fund interest earnings. Thus the figure illustrates the fact that, under intermediate assumptions, combined OASDI expenditures will be payable from (1) current tax income alone through 2012, (2) current tax income plus a portion of annual interest income for years 2013 through 2018, and (3) current tax income, annual interest income, plus a portion of the principal balance in the trust funds for years 2019 through 2029, i.e., through the year of trust fund exhaustion.

FIGURE III.B1.--ESTIMATED OASDI INCOME AND OUTGO IN CONSTANT DOLLARS, BASED ON ALTERNATIVE II, CALENDAR YEARS 1994-2029

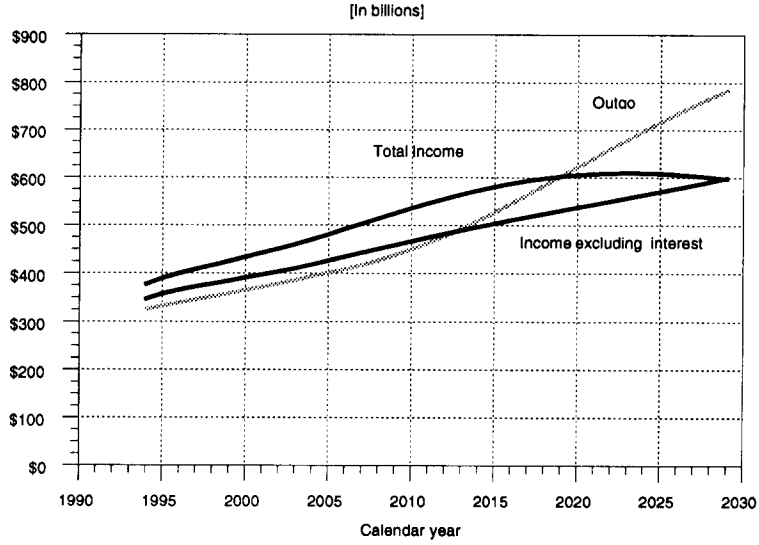

Table III.B3 shows estimated operations of the combined OASI and DI Trust Funds in current dollars—that is in dollars unadjusted for inflation. Items included in the table are: income excluding interest, interest income, total income, total outgo, and assets at the end of the year. These estimates, based on the low cost, intermediate, and high cost sets of economic and demographic assumptions (I, II, and III), are presented to facilitate independent analysis.

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TABLE III.B3.—ESTIMATED OPERATIONS OF THE COMBINED OASI AND DI TRUST FUNDS IN CURRENT DOLLARS BY ALTERNATIVE, CALENDAR YEARS 1994-2070

[In billions]

Calendar year	Income excluding interest	Interest income	Total income	Outgo	Assets at end of year
Intermediate:					
1994	$347.0	$30.4	$377.4	$324.8	$430.9
1995	368.8	33.2	402.1	342.5	490.5
1996	389.3	36.4	425.7	361.1	555.1
1997	409.8	39.9	449.7	380.6	624.2
1998	430.9	43.9	474.8	401.2	697.8
1999	454.1	48.1	502.2	423.6	776.4
2000	479.8	52.6	532.5	447.8	861.1
2001	507.2	57.7	564.9	474.2	951.8
2002	535.8	63.3	599.1	502.6	1,048.2
2003	566.8	69.2	636.0	532.9	1,151.3
2005	637.1	82.5	719.7	599.1	1,382.9
2010	848.6	124.9	973.5	818.0	2,107.5
2015	1,114.6	169.4	1,284.0	1,165.7	2,815.8
2020	1,446.7	183.5	1,630.2	1,673.9	2,975.9
2025[1]	1,868.2	125.0	1,993.1	2,346.1	1,894.2
Low Cost:					
1994	350.0	30.5	380.5	323.7	435.1
1995	375.2	33.7	408.9	339.2	504.8
1996	400.7	37.6	438.2	355.1	587.9
1997	425.6	42.5	468.0	372.4	683.6
1998	451.6	48.2	499.7	390.2	793.1
1999	478.6	54.7	533.3	408.8	917.6
2000	506.8	62.3	569.1	428.2	1,058.5
2001	536.0	70.8	606.9	448.7	1,216.6
2002	565.8	80.2	646.0	470.5	1,392.2
2003	597.6	90.7	688.2	493.7	1,586.7
2005	666.9	115.4	782.3	543.9	2,040.0
2010	873.2	202.1	1,075.3	712.5	3,608.6
2015	1,125.7	324.6	1,450.3	987.1	5,737.1
2020	1,437.2	470.9	1,908.1	1,380.5	8,254.9
2025	1,832.8	634.5	2,467.2	1,883.2	11,061.7
2030	2,346.8	819.4	3,166.2	2,477.5	14,255.0
2035	3,017.5	1,051.2	4,068.7	3,157.3	18,301.9
2040	3,877.1	1,376.7	5,253.8	3,926.7	24,028.6
2045	4,969.6	1,851.3	6,820.9	4,903.9	32,368.9
2050	6,364.8	2,526.2	8,891.0	6,199.6	44,196.5
2055	8,158.1	3,459.7	11,617.8	7,936.0	60,516.1
2060	10,470.7	4,734.3	15,205.0	10,168.5	82,797.4
2065	13,445.2	6,487.4	19,932.6	12,979.5	113,464.7
2070	17,245.7	8,907.0	26,152.6	16,582.6	155,772.8
High Cost:					
1994	345.7	30.4	376.0	326.0	428.3
1995	362.2	33.0	395.2	347.7	475.8
1996	382.6	35.8	418.4	370.2	523.9
1997	408.6	39.4	448.1	400.6	571.4
1998	423.7	42.6	466.3	436.6	601.1
1999	446.2	44.6	490.8	467.6	624.2
2000	476.6	45.9	522.5	501.8	644.9
2001	507.0	46.9	553.8	538.0	660.8
2002	537.1	47.3	584.4	576.2	669.1
2003	569.3	47.1	616.5	616.7	668.8
2005	644.3	44.3	688.7	699.4	652.4
2010[1]	873.4	30.5	903.9	966.7	467.6

[1]Estimates for later years are not shown because the combined OASI and DI Trust Funds are estimated to become exhausted in 2029 under alternative II and in 2014 under alternative III.

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

Table III.B4 shows estimated income excluding interest and estimated total outgo of the combined OASI and DI Trust Funds, of the HI Trust Fund, and of the combined OASI, DI, and HI Trust Funds, based on the low cost, intermediate, and high cost sets of assumptions (alternatives I, II, and III) described earlier in this report. For OASDI, income excluding interest consists of payroll-tax contributions, proceeds from taxation of OASDI benefits, and miscellaneous transfers from the general fund of the Treasury. Outgo consists of benefit payments, administrative expenses, net transfers from the trust funds to the Railroad Retirement program, and payments for vocational rehabilitation services for disabled beneficiaries. For HI, income excluding interest consists of contributions (including contributions from railroad employment), proceeds from the taxation of OASDI benefits, and payments from the general fund of the Treasury for contributions on deemed wage credits for military service. Total outgo consists of outlays (benefits and administrative expenses) for insured beneficiaries. Income and outgo estimates are shown on a cash basis for the OASDI program and on an incurred basis for the HI program.

Table III.B4 also shows the difference between income excluding interest and outgo, which is called the balance. The balance indicates the size of the net cash flow from tax income and expenditures to the funds.

TABLE III.B4.—ESTIMATED OASDI AND HI INCOME EXCLUDING INTEREST, OUTGO, AND BALANCE IN CURRENT DOLLARS BY ALTERNATIVE, CALENDAR YEARS 1994-2070

[In billions]

Calendar year	OASDI			HI			Combined		
	Income excluding interest	Outgo	Balance	Income excluding interest	Outgo	Balance	Income excluding interest	Outgo	Balance
Intermediate:									
1994	$347	$325	$22	$101	$108	–$7	$448	$433	$15
1995	369	342	26	107	118	–11	476	460	16
1996	389	361	28	113	128	–15	502	489	13
1997	410	381	29	119	139	–20	529	520	9
1998	431	401	30	125	152	–26	556	553	3
1999	454	424	31	132	166	–33	587	589	–3
2000	480	448	32	140	181	–41	620	629	–9
2001	507	474	33	148	198	–50	655	672	–17
2002	536	503	33	157	216	–59	693	719	–26
2003	567	533	34	166	235	–69	733	768	–35
2005	637	599	38	187	278	–91	824	877	–53
2010	849	818	31	250	409	–158	1,099	1,227	–128
2015	1,115	1,166	–51	332	615	–283	1,446	1,780	–334
2020	1,447	1,674	–227	435	906	–471	1,882	2,580	–698
2025	1,868	2,346	–478	568	1,326	–758	2,436	3,672	–1,236
2030	2,417	3,177	–761	741	1,911	–1,171	3,157	5,088	–1,931
2035	3,131	4,172	–1,042	964	2,668	–1,704	4,095	6,840	–2,746
2040	4,044	5,352	–1,308	1,249	3,594	–2,345	5,293	8,946	–3,654
2045	5,201	6,875	–1,674	1,609	4,737	–3,128	6,810	11,612	–4,802
2050	6,669	8,910	–2,240	2,070	6,186	–4,116	8,739	15,096	–6,357
2055	8,550	11,672	–3,122	2,663	8,108	–5,445	11,213	19,780	–8,567
2060	10,969	15,273	–4,304	3,428	10,717	–7,290	14,397	25,991	–11,594
2065	14,073	19,868	–5,794	4,409	14,234	–9,825	18,482	34,102	–15,620
2070	18,043	25,754	–7,710	5,665	18,881	–13,216	23,708	44,634	–20,926
Low Cost:									
1994	350	324	26	102	107	–6	452	431	20
1995	375	339	36	109	116	–8	484	456	28
1996	401	355	46	116	126	–10	516	481	35
1997	426	372	53	123	135	–12	549	508	41
1998	452	390	61	131	146	–15	582	536	46
1999	479	409	70	138	157	–19	617	566	51
2000	507	428	79	146	170	–23	653	598	55
2001	536	449	87	155	182	–28	691	631	60
2002	566	470	95	163	195	–32	729	666	63
2003	598	494	104	173	209	–36	770	703	68
2005	667	544	123	193	238	–45	860	782	78
2010	873	713	161	253	318	–65	1,126	1,030	96
2015	1,126	987	139	328	433	–105	1,454	1,420	34
2020	1,437	1,381	57	423	575	–152	1,860	1,956	–96
2025	1,833	1,883	–50	544	765	–221	2,377	2,648	–271
2030	2,347	2,477	–131	700	1,026	–326	3,047	3,504	–456
2035	3,017	3,157	–140	903	1,364	–461	3,920	4,521	–601
2040	3,877	3,927	–50	1,161	1,792	–631	5,038	5,719	–681
2045	4,970	4,904	66	1,488	2,349	–860	6,458	7,253	–795
2050	6,365	6,200	165	1,908	3,068	–1,160	8,273	9,268	–995
2055	8,158	7,936	222	2,449	4,022	–1,573	10,607	11,958	–1,351
2060	10,471	10,168	302	3,147	5,332	–2,185	13,618	15,500	–1,882
2065	13,445	12,979	466	4,044	7,103	–3,059	17,489	20,082	–2,593
2070	17,246	16,583	663	5,190	9,432	–4,242	22,435	26,014	–3,579

TABLE III.B4.—ESTIMATED OASDI AND HI INCOME EXCLUDING INTEREST, OUTGO, AND BALANCE IN CURRENT DOLLARS BY ALTERNATIVE, CALENDAR YEARS 1994-2070 (Cont.)

[In billions]

Calendar year	OASDI			HI			Combined		
	Income excluding interest	Outgo	Balance	Income excluding interest	Outgo	Balance	Income excluding interest	Outgo	Balance
High Cost:									
1994	$346	$326	$20	$100	$108	–$7	$446	$434	$12
1995	362	348	14	105	119	–14	467	467	1
1996	383	370	12	112	132	–21	494	502	–8
1997	409	401	8	120	147	–27	529	548	–19
1998	424	437	–13	124	162	–38	548	599	–50
1999	446	468	–21	132	180	–48	578	648	–70
2000	477	502	–25	141	202	–61	618	704	–86
2001	507	538	–31	150	225	–75	657	763	–106
2002	537	576	–39	160	250	–91	697	827	–130
2003	569	617	–47	170	278	–108	739	895	–156
2005	644	699	–55	193	342	–149	837	1,041	–204
2010	873	967	–93	262	556	–294	1,136	1,523	–387
2015	1,170	1,391	–221	355	930	–575	1,525	2,322	–796
2020	1,546	2,042	–496	475	1,531	–1,055	2,021	3,572	–1,551
2025	2,026	2,941	–915	631	2,467	–1,836	2,657	5,409	–2,751
2030	2,654	4,122	–1,468	835	3,827	–2,993	3,489	7,950	–4,461
2035	3,473	5,621	–2,148	1,101	5,605	–4,505	4,573	11,226	–6,653
2040	4,517	7,487	–2,970	1,439	7,749	–6,309	5,956	15,236	–9,280
2045	5,827	9,946	–4,119	1,867	10,244	–8,377	7,694	20,190	–12,496
2050	7,483	13,279	–5,796	2,411	13,361	–10,949	9,895	26,640	–16,745
2055	9,593	17,848	–8,255	3,113	17,432	–14,319	12,706	35,280	–22,574
2060	12,299	23,927	–11,628	4,020	22,971	–18,951	16,319	46,898	–30,579
2065	15,768	31,795	–16,026	5,185	30,421	–25,236	20,953	62,215	–41,262
2070	20,167	41,951	–21,784	6,666	40,130	–33,464	26,834	82,081	–55,247

Notes:

1. Annual figures are available from the Office of the Actuary, Social Security Administration.
2. Totals do not necessarily equal the sums of rounded components.

Table III.B5 shows estimated future benefit amounts payable to persons attaining age 65 in various years based on retirement at the normal retirement age and at age 65, for various steady levels of pre-retirement earnings, based on intermediate assumptions. The benefit amount is shown in current dollars, constant dollars (adjusted by the CPI indexing series shown in table III.B1), and as a percentage of earnings in the 12-month period preceding retirement. The normal retirement age is currently 65, and is scheduled to increase to age 66 during the period 2000-2005 (at a rate of 2 months per year as workers attain age 62), and to age 67 during the period 2017-2022 (also by 2 months per year as workers attain age 62). The pre-retirement earnings levels shown are: low (earnings at 45 percent of the projected SSA average wage index), average (earnings at the amount of the projected SSA average wage index), and maximum (earnings at the amount of the projected OASDI contribution and benefit base).

TABLE III.B5.—ESTIMATED AVERAGE BENEFIT AMOUNT PAYABLE[1] TO RETIRED WORKERS WITH VARIOUS STEADY PRE-RETIREMENT EARNINGS LEVELS BASED ON INTERMEDIATE ASSUMPTIONS, CALENDAR YEARS 1994-2070

Year attain age 65[3]	Age at retirement	Current dollars			Constant 1994 dollars[2]			Percent of earnings		
		Low[4]	Average	Maximum[5]	Low[4]	Average	Maximum[5]	Low[4]	Average	Maximum[5]
Retirement at normal retirement age:										
1994	65:0	$6,074	$9,972	$13,797	$6,074	$9,972	$13,797	57.5	42.5	24.0
1995	65:0	6,268	10,347	14,438	6,076	10,030	13,995	57.8	43.0	23.8
2000	65:0	7,669	12,665	18,396	6,248	10,318	14,987	57.2	42.5	25.4
2005	65:6	9,836	16,247	24,481	6,458	10,667	16,073	56.5	42.0	26.5
2010	66:0	12,810	21,179	32,990	6,778	11,207	17,457	56.3	41.9	27.3
2015	66:0	16,350	27,041	42,827	7,111	11,761	18,626	56.3	41.9	27.8
2020	66:2	21,006	34,746	55,206	7,460	12,340	19,606	56.2	41.8	27.9
2025	67:0	27,837	46,125	73,155	7,864	13,031	20,668	56.0	41.8	27.8
2030	67:0	35,530	58,875	93,346	8,250	13,671	21,676	56.0	41.8	27.8
2035	67:0	45,355	75,142	119,052	8,656	14,342	22,722	56.0	41.8	27.8
2040	67:0	57,888	95,910	151,632	9,081	15,046	23,787	56.0	41.8	27.7
2045	67:0	73,889	122,410	193,314	9,527	15,783	24,925	56.0	41.8	27.7
2050	67:0	94,309	156,231	246,652	9,995	16,557	26,139	56.0	41.8	27.7
2055	67:0	120,364	199,394	314,749	10,484	17,368	27,416	56.0	41.8	27.6
2060	67:0	153,619	254,490	401,703	10,998	18,220	28,760	56.0	41.8	27.6
2065	67:0	196,071	324,815	512,699	11,538	19,114	30,170	56.0	41.8	27.6
2070	67:0	250,240	414,549	654,350	12,103	20,050	31,649	56.0	41.8	27.6
Retirement at age 65:										
1994	65:0	6,074	9,972	13,797	6,074	9,972	13,797	57.5	42.5	24.0
1995	65:0	6,268	10,347	14,438	6,076	10,030	13,995	57.8	43.0	23.8
2000	65:0	7,669	12,665	18,396	6,248	10,318	14,987	57.2	42.5	25.4
2005	65:0	9,319	15,388	23,201	6,239	10,303	15,534	54.8	40.8	25.7
2010	65:0	11,450	18,903	29,354	6,301	10,403	16,154	52.8	39.2	25.5
2015	65:0	14,605	24,128	38,215	6,606	10,914	17,285	52.8	39.2	26.0
2020	65:0	18,433	30,437	48,425	6,853	11,316	18,003	52.2	38.8	25.9
2025	65:0	22,105	36,505	58,105	6,755	11,155	17,755	49.0	36.4	24.3
2030	65:0	28,210	46,595	74,154	7,085	11,703	18,624	49.0	36.4	24.3
2035	65:0	36,011	59,466	94,563	7,434	12,276	19,521	49.0	36.4	24.3
2040	65:0	45,957	75,900	120,448	7,798	12,878	20,437	49.0	36.4	24.3
2045	65:0	58,659	96,874	153,546	8,181	13,510	21,413	49.0	36.4	24.2
2050	65:0	74,877	123,651	195,915	8,583	14,173	22,457	49.0	36.4	24.2
2055	65:0	95,561	157,809	249,999	9,003	14,868	23,553	49.0	36.4	24.2
2060	65:0	121,965	201,417	319,072	9,445	15,597	24,708	49.0	36.4	24.2
2065	65:0	155,665	257,066	407,229	9,908	16,362	25,919	49.0	36.4	24.2
2070	65:0	198,672	328,090	519,754	10,393	17,163	27,190	49.0	36.4	24.2

[1]Annual benefit amount is the benefit payable for the 12-month period starting with the month of retirement.

[2]The adjustment from current to constant dollars is made using the CPI indexing series shown in table III.B1.

[3]Assumed to attain age 65 in January of the year.

[4]Earnings equal to 45 percent of average.

[5]Earnings equal to the OASDI contribution and benefit base.

C. LONG-RANGE ESTIMATES OF SOCIAL SECURITY TRUST FUND OPERATIONS AS A PERCENTAGE OF THE GROSS DOMESTIC PRODUCT

This appendix presents long-range projections of the operations of the combined Old-Age and Survivors Insurance and Disability Insurance (OASI and DI) Trust Funds and of the Hospital Insurance (HI) Trust Fund expressed as a percentage of the gross domestic product (GDP). While expressing these fund operations as a percentage of taxable payroll is the most useful approach for assessing the financial status of the programs, (see table II.F12 and section III.A), analyzing them as a percentage of GDP provides an additional perspective on these fund operations in relation to the total value of goods and services produced in the United States.

Table III.C1 shows estimated income excluding interest, total outgo, and the resulting balance of the combined OASI and DI Trust Funds, of the HI Trust Fund, and of the combined OASI, DI, and HI Trust Funds, expressed as percentages of GDP on the basis of each of the three alternative sets of assumptions. The estimated GDP on which these percentages are based is also shown in table III.C1. For OASDI, income excluding interest consists of payroll-tax contributions, proceeds from taxation of benefits, and various reimbursements from the general fund of the Treasury. Total outgo consists of benefit payments, administrative expenses, net transfers from the trust funds to the Railroad Retirement program, and payments for vocational rehabilitation services for disabled beneficiaries. For HI, income excluding interest consists of contributions (including contributions from railroad employment) and payments from the general fund of the Treasury for contributions on deemed wage credits for military service. Total outgo consists of outlays (benefits and administrative expenses) for insured beneficiaries. Both the HI income and outgo are on an incurred basis.

The OASDI balance (income excluding interest, less outgo) as a percentage of GDP is projected to be positive on the basis of the low cost alternative I virtually throughout the long-range period. The OASDI balance is projected to be positive through 2010 on the basis of the intermediate alternative II and through 1997 on the basis of the high cost alternative III, before becoming permanently negative. The projected HI balance as a percentage of GDP, however, is negative throughout the long-range period under all three alternatives.

The combined OASDI and HI balance as a percentage of GDP is projected to be positive through 2015 under the low cost alternative I, through 1998 under the intermediate alternative II, and through only 1995 under the high cost alternative III. Between 2010 and about 2030, under all three alternatives, both the OASDI and HI balances as percentages of GDP are projected to decline substantially because the "baby-boom" generation reaches retirement age during these years. After balances cease to be positive under the intermediate and high cost alternatives, the size of annual deficits increases fairly steadily for the OASDI and HI programs, both separately and combined.

By the year 2070, the combined OASDI and HI balances as percentages of GDP, based on the three alternatives, are projected to differ by a relatively large amount: from a deficit of 1.07 percent for the low cost alternative I to a deficit of 12.51 percent for the high cost alternative III. Projected balances differ by a much smaller amount by the year 2005: from a positive balance of 0.62 percent for the low cost alternative I to a deficit of 1.59 percent for the high cost alternative III.

The summarized long-range (75-year) balance as a percentage of GDP for the combined OASDI and HI programs varies by a relatively large amount (from a deficit of 0.27 percent, based on the low cost alternative I, to a deficit of 6.31 percent, based on the high cost alternative III). The 25-year summarized balance varies by a smaller amount (from a positive of 0.52 percent to a deficit of 1.82 percent). Summarized rates are calculated on the present-value basis including the trust fund balances on January 1, 1994 and the cost of reaching and maintaining a target trust fund level equal to 100 percent of annual expenditures by the end of the period. (See section II.F for further explanation.)

TABLE III.C1.—ESTIMATED OASDI AND HI INCOME EXCLUDING INTEREST, OUTGO, AND BALANCE AS A PERCENTAGE OF GDP BY ALTERNATIVE, CALENDAR YEARS 1994-2070

	Percentage of GDP									
	OASDI			HI			Combined			GDP in dollars (billions)
Calendar year	Income[1]	Outgo	Balance	Income[1]	Outgo	Balance	Income[1]	Outgo	Balance	
Intermediate:										
1994	5.16	4.83	0.33	1.50	1.60	–0.10	6.66	6.43	0.23	$6,726
1995	5.19	4.82	.37	1.51	1.66	–.15	6.70	6.47	.22	7,107
1996	5.19	4.82	.38	1.51	1.71	–.20	6.70	6.53	.17	7,499
1997	5.19	4.82	.37	1.51	1.76	–.25	6.69	6.58	.12	7,902
1998	5.18	4.82	.36	1.51	1.82	–.32	6.68	6.64	.04	8,322
1999	5.17	4.82	.35	1.51	1.89	–.38	6.68	6.71	–.03	8,784
2000	5.17	4.82	.35	1.51	1.95	–.44	6.67	6.77	–.10	9,289
2001	5.16	4.82	.33	1.51	2.01	–.50	6.67	6.84	–.17	9,832
2002	5.15	4.83	.32	1.51	2.07	–.57	6.66	6.90	–.25	10,408
2003	5.14	4.83	.31	1.51	2.13	–.62	6.65	6.97	–.32	11,025
2005	5.14	4.83	.31	1.51	2.24	–.73	6.65	7.08	–.42	12,396
2010	5.14	4.96	.19	1.52	2.48	–.96	6.66	7.44	–.78	16,499
2015	5.14	5.38	–.24	1.53	2.84	–1.31	6.68	8.22	–1.54	21,665
2020	5.14	5.95	–.81	1.55	3.22	–1.67	6.68	9.16	–2.48	28,156
2025	5.13	6.44	–1.31	1.56	3.64	–2.08	6.69	10.08	–3.39	36,437
2030	5.11	6.71	–1.61	1.57	4.04	–2.47	6.67	10.75	–4.08	47,321
2035	5.08	6.76	–1.69	1.56	4.33	–2.76	6.64	11.09	–4.45	61,687
2040	5.03	6.66	–1.63	1.55	4.47	–2.92	6.59	11.14	–4.55	80,332
2045	4.99	6.60	–1.61	1.54	4.55	–3.00	6.54	11.15	–4.61	104,183
2050	4.95	6.62	–1.66	1.54	4.59	–3.06	6.49	11.21	–4.72	134,630
2055	4.92	6.72	–1.80	1.53	4.66	–3.13	6.45	11.38	–4.93	173,805
2060	4.88	6.80	–1.92	1.53	4.77	–3.25	6.41	11.57	–5.16	224,580
2065	4.85	6.84	–2.00	1.52	4.90	–3.38	6.37	11.74	–5.38	290,371
2070	4.81	6.86	–2.05	1.51	5.03	–3.52	6.32	11.89	–5.58	375,336
Summarized rates:[2]										
25-year:										
1994-2018	5.43	5.22	.20	1.60	2.39	–.78	7.03	7.61	–.58	---
50-year:										
1994-2043	5.28	5.80	–.51	1.58	3.10	–1.52	6.87	8.90	–2.03	---
75-year:										
1994-2068	5.19	6.02	–.83	1.57	3.51	–1.94	6.76	9.53	–2.77	---
Low Cost:										
1994	5.16	4.77	.39	1.50	1.58	–.09	6.65	6.35	.30	6,787
1995	5.19	4.70	.50	1.51	1.61	–.10	6.70	6.31	.39	7,224
1996	5.21	4.62	.59	1.51	1.64	–.13	6.72	6.26	.46	7,686
1997	5.22	4.56	.65	1.51	1.66	–.15	6.72	6.22	.50	8,159
1998	5.22	4.51	.71	1.51	1.69	–.18	6.73	6.20	.53	8,647
1999	5.23	4.47	.76	1.51	1.72	–.21	6.74	6.19	.55	9,152
2000	5.24	4.43	.81	1.51	1.75	–.24	6.75	6.18	.57	9,671
2001	5.25	4.40	.86	1.52	1.79	–.27	6.77	6.18	.59	10,207
2002	5.26	4.37	.89	1.52	1.81	–.30	6.77	6.19	.59	10,764
2003	5.26	4.35	.92	1.52	1.84	–.32	6.78	6.19	.60	11,351
2005	5.27	4.30	.97	1.52	1.88	–.36	6.80	6.18	.62	12,646
2010	5.29	4.32	.97	1.53	1.93	–.39	6.83	6.25	.58	16,497
2015	5.31	4.66	.65	1.55	2.04	–.50	6.86	6.70	.16	21,196
2020	5.32	5.11	.21	1.57	2.13	–.56	6.89	7.24	–.35	27,015
2025	5.32	5.47	–.15	1.58	2.22	–.64	6.90	7.69	–.79	34,431
2030	5.32	5.61	–.30	1.59	2.32	–.74	6.90	7.94	–1.03	44,143
2035	5.30	5.54	–.25	1.59	2.40	–.81	6.88	7.94	–1.06	56,942
2040	5.27	5.34	–.07	1.58	2.44	–.86	6.85	7.78	–.93	73,521
2045	5.25	5.18	.07	1.57	2.48	–.91	6.82	7.66	–.84	94,705
2050	5.22	5.09	.14	1.57	2.52	–.95	6.79	7.61	–.82	121,839

TABLE III.C1.—ESTIMATED OASDI AND HI INCOME EXCLUDING INTEREST, OUTGO, AND BALANCE AS A PERCENTAGE OF GDP BY ALTERNATIVE, CALENDAR YEARS 1994-2070 (Cont.)

Calendar year	Percentage of GDP									GDP in dollars (billions)
	OASDI			HI			Combined			
	Income[1]	Outgo	Balance	Income[1]	Outgo	Balance	Income[1]	Outgo	Balance	
Low Cost (Cont.):										
2055	5.20	5.06	0.14	1.56	2.56	−1.00	6.76	7.63	−0.86	$156,798
2060	5.18	5.03	.15	1.56	2.64	−1.08	6.74	7.67	−.93	202,088
2065	5.16	4.98	.18	1.55	2.72	−1.17	6.71	7.70	−.99	260,678
2070	5.13	4.94	.20	1.54	2.81	−1.26	6.68	7.74	−1.07	335,891
Summarized rates:[2]										
25-year:										
1994-2018	5.53	4.69	.84	1.61	1.93	−.32	7.14	6.62	.52	---
50-year:										
1994-2043	5.44	5.00	.43	1.60	2.10	−.50	7.03	7.10	−.07	---
75-year:										
1994-2068	5.38	5.01	.37	1.59	2.23	−.64	6.96	7.23	−.27	---
High Cost:										
1994	5.16	4.87	.29	1.50	1.61	−.11	6.66	6.48	0.18	6,697
1995	5.26	5.05	.21	1.52	1.73	−.20	6.79	6.78	.01	6,885
1996	5.16	4.99	.17	1.51	1.78	−.28	6.67	6.78	−.11	7,413
1997	5.15	5.04	.10	1.51	1.85	−.34	6.66	6.90	−.24	7,942
1998	5.21	5.36	−.16	1.53	1.99	−.46	6.73	7.35	−.62	8,139
1999	5.10	5.35	−.24	1.50	2.06	−.55	6.61	7.40	−.80	8,748
2000	5.08	5.34	−.27	1.50	2.15	−.65	6.58	7.49	−.92	9,389
2001	5.07	5.38	−.31	1.50	2.25	−.75	6.57	7.63	−1.06	10,003
2002	5.05	5.42	−.37	1.50	2.36	−.85	6.55	7.78	−1.22	10,630
2003	5.04	5.46	−.42	1.50	2.46	−.96	6.54	7.92	−1.38	11,303
2005	5.02	5.45	−.43	1.50	2.67	−1.16	6.53	8.12	−1.59	12,823
2010	5.01	5.55	−.54	1.51	3.19	−1.68	6.52	8.74	−2.22	17,430
2015	4.99	5.94	−.94	1.51	3.97	−2.45	6.51	9.91	−3.40	23,433
2020	4.97	6.57	−1.59	1.53	4.92	−3.39	6.50	11.49	−4.99	31,091
2025	4.95	7.18	−2.23	1.54	6.02	−4.48	6.49	13.21	−6.72	40,958
2030	4.92	7.64	−2.72	1.55	7.09	−5.54	6.46	14.72	−8.26	53,989
2035	4.88	7.89	−3.02	1.55	7.87	−6.33	6.42	15.76	−9.34	71,213
2040	4.83	8.00	−3.17	1.54	8.28	−6.74	6.36	16.28	−9.92	93,581
2045	4.78	8.15	−3.38	1.53	8.40	−6.87	6.31	16.55	−10.24	121,985
2050	4.73	8.40	−3.67	1.53	8.45	−6.92	6.26	16.85	−10.59	158,121
2055	4.69	8.73	−4.04	1.52	8.53	−7.00	6.22	17.26	−11.04	204,419
2060	4.65	9.05	−4.40	1.52	8.69	−7.17	6.18	17.75	−11.57	264,270
2065	4.61	9.30	−4.69	1.52	8.90	−7.38	6.13	18.19	−12.07	341,979
2070	4.57	9.50	−4.93	1.51	9.08	−7.58	6.07	18.58	−12.51	441,747
Summarized rates:[2]										
25-year:										
1994-2018	5.34	5.76	−.42	1.60	3.00	−1.40	6.94	8.76	−1.82	---
50-year:										
1994-2043	5.15	6.56	−1.42	1.57	4.82	−3.25	6.72	11.38	−4.66	---
75-year:										
1994-2068	5.03	7.12	−2.09	1.56	5.78	−4.22	6.59	12.90	−6.31	---

[1]Income excludes interest on the trust funds.

[2]Summarized rates are calculated on the present-value basis including the value of the trust funds on January 1, 1994 and the cost of reaching and maintaining a target trust fund level 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 difference between trust fund operations expressed as percentages of taxable payroll and those expressed as percentages of GDP can be seen by analyzing the estimated ratios of OASDI taxable payroll to GDP, which are presented in table III.C2. HI taxable payroll is about 20 percent larger than the OASDI taxable payroll throughout the long-range period (see section III.A for a detailed description of the difference). The cost as a percentage of GDP is approximately equal to the cost as a percentage of taxable payroll multiplied by the ratio of taxable payroll to GDP.

TABLE III.C2.—RATIO OF OASDI TAXABLE PAYROLL TO GDP BY ALTERNATIVE, CALENDAR YEARS 1994-2070

Calendar year	Intermediate	Low Cost	High Cost
1994	0.415	0.415	0.415
1995	.413	.414	.416
1996	.411	.413	.409
1997	.411	.414	.407
1998	.411	.415	.412
1999	.410	.416	.404
2000	.410	.416	.402
2001	.409	.417	.401
2002	.408	.418	.400
2003	.407	.418	.398
2005	.406	.418	.396
2010	.404	.418	.392
2015	.401	.416	.387
2020	.397	.415	.382
2025	.394	.413	.376
2030	.390	.411	.371
2035	.386	.409	.366
2040	.382	.407	.360
2045	.379	.405	.355
2050	.375	.403	.350
2055	.372	.401	.345
2060	.368	.399	.340
2065	.365	.397	.335
2070	.361	.395	.331

Projections of GDP for the first several years were based on assumed quarterly changes in real GDP and the GDP implicit price deflator. Thereafter, projections of GDP were based on the projected increases in U.S. employment, labor productivity, and the GDP implicit price deflator. Productivity projections are consistent with assumed changes in the level of average earnings, the ratio of earnings to worker compensation, the ratio of worker compensation to GDP, and average hours worked per year (see section II.H).

Projections of taxable payroll, which are described in detail in section II.H, were based on the projected increases in covered employment and average taxable earnings. Therefore, the projected increases in taxable payroll differ from projected increases in GDP primarily to

the extent that average taxable earnings are assumed to increase more slowly than is productivity and to the extent that OASDI program coverage of employment changes over time.

The long-range trend in the ratio of taxable payroll to GDP reflects the assumed trend in the ratio of wages to total employee compensation—i.e., wages plus fringe benefits. The ratio of wages to total employee compensation declined at average annual rates of 0.34 percent for the 40 years 1953-92 and 0.33, 0.39, 0.56, and 0.09 percent for the 10-year periods 1953-62, 1963-72, 1973-82, and 1983-92, respectively. Ultimate future annual rates of decline in the ratio of wages to employee compensation are assumed to be 0.1, 0.2, and 0.3 percent for alternatives I, II, and III, respectively. An additional factor that has made the overall ratio of taxable payroll to GDP decline in recent years is the decline in the ratio of taxable earnings to covered earnings, as a result the relatively greater increases in earnings for persons with earnings above the benefit and contribution base. This decline in the taxable ratio is assumed to continue at a slower pace through the end of this century.

Between 1983 and 2015, however, the tendency toward decreases in the ratio of taxable payroll to GDP, discussed above, is at least partially offset by the gradually expanding OASDI coverage of Federal civilian employment resulting from the 1983 amendments.

For the low cost alternative I, the ratio of taxable payroll to GDP is projected to rise slowly through the year 2003, and then to decrease for the remainder of the long-range period. For the intermediate and high cost alternatives, the ratio of taxable payroll to GDP is projected to decrease essentially throughout the long-range period.

D. TEN YEAR HISTORY OF ACTUARIAL BALANCE ESTIMATES

This appendix chronicles the recent history of the primary measure of long-range actuarial status, namely the actuarial balance, as shown in the annual reports for 1984 and later. Actuarial balance is defined in detail in section II.F, Actuarial Estimates. Conceptually, the two basic components of actuarial balance are the summarized income rate and the summarized cost rate. Both rates are expressed as percentages of taxable payroll. For any given period, the actuarial balance is the difference between the present value of tax income for the period, and the present value of the outgo for the period, each divided by the present value of taxable payroll for all years in the period. Also included in the calculation of the actuarial balance are:

1. The amount of the trust fund balances on hand at the beginning of the valuation period, as shown in the reports for 1988 and later, and

2. The present value of a target trust fund balance equal to 100 percent of the amount of annual outgo to be reached and maintained by the end of the valuation period, as shown in the reports for 1991 and later.

It should be noted that the current method of calculating the actuarial balance based on present values, though used prior to the 1973 Annual Report, was not used for the annual reports of 1973-87. Instead, a simpler method that approximates the results of the present-value approach, called the "average-cost" method, was used during that period. Under the average-cost method, the sum of the annual cost rates (which are expressed as percentages of taxable payroll) over the 75-year projection period was divided by the total number of years, 75, to obtain the average cost rate per year. The average income rate was similarly calculated, and the difference between the average income rate and the average cost rate was called the actuarial balance.

In 1973, when the average-cost method was first used, the long-range financing of the program was more nearly on a pay-as-you-go basis. Also, based on the long-range economic and demographic assumptions then being used, the annual rate of growth in taxable payroll was about the same as the annual rate at which the trust funds earned interest. In either situation (i.e., pay-as-you-go financing,

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where the annual income rate is the same as the annual cost rate, or an annual rate of growth in taxable payroll equal to the annual interest rate), the average-cost method produces the same result as the present-value method. However, by 1988, neither of these situations still existed.

As a result of legislation enacted in 1977 and in 1983, substantial increases in the trust funds were estimated to occur well into the next century, so that the program was partially "advance funded," rather than being funded on a pay-as-you-go basis. Also, because of declines in long-range fertility rates and average real-wage growth that were assumed in the annual reports over the period 1973-87, the annual rate of growth in taxable earnings assumed for the long range became significantly lower than the assumed interest rate. Therefore, during the period 1973-87, the results of the average-cost method and the present-value method began to diverge, and by 1988 they were quite different. While the average-cost method still accounted for most of the effects of the assumed interest rate, it no longer accounted for all of the interest effects. The present-value method, of course, does account for the full effect of the assumed interest rates. So, in 1988, the present-value method of calculating the actuarial balance was resumed.

A positive actuarial balance indicates that estimated income is more than sufficient to meet estimated trust fund obligations for the period as a whole. A negative actuarial balance indicates that estimated income is insufficient to meet estimated trust fund obligations for the entire period. An actuarial balance of zero indicates that the estimated income exactly matches estimated trust fund obligations for the period.

Table III.D.1 shows the estimated OASDI actuarial balances, as well as the summarized income and cost rates, for the last 10 annual reports (1984-1993), along with the estimates for the current report. The values shown are based on the intermediate alternative II assumptions, or alternative II-B for years prior to 1991.

TABLE III.D1.—LONG-RANGE ACTUARIAL BALANCES FOR THE OASDI PROGRAM AS SHOWN FOR THE INTERMEDIATE ASSUMPTIONS[1] IN THE TRUSTEES REPORTS ISSUED IN YEARS 1984-1994

[As a percentage of taxable payroll]

Year of report	Summarized income rate	Summarized cost rate	Actuarial balance	Change from previous year
1984	12.90	12.95	−0.06	−0.08
1985	12.94	13.35	−.41	−.35
1986	12.96	13.40	−.44	−.03
1987	12.89	13.51	−.62	−.18
1988	12.94	13.52	−.58	+.04
1989	13.02	13.72	−.70	−.13
1990	13.04	13.95	−.91	−.21
1991	13.11	14.19	−1.08	−.17
1992	13.16	14.63	−1.46	−.38
1993	13.21	14.67	−1.46	−.00
1994	13.24	15.37	−2.13	−.66

[1]Values shown are based on the intermediate alternative II assumptions for 1991-94, and on the intermediate alternative II-B assumptions for 1984-90.

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

For several of the years included in the table, significant legislative changes or definitional changes have affected the estimated actuarial balance. In 1985, for example, the estimated actuarial balance changed largely because of an adjustment made to the method for estimating the age distribution of immigrants.

Rebenchmarking of the National Income and Product Accounts, and changes in demographic assumptions contributed to the change in actuarial balance for 1987. Various changes in assumptions and methods for the 1988 report had roughly offsetting effects on the actuarial balance. In 1989 and 1990, changes in economic assumptions accounted for most of the changes in the estimated actuarial balance. In 1991, the effect of legislation, changes in economic assumptions, and the introduction of the cost of reaching and maintaining an ending trust fund target combined to produce the change in actuarial balance. In 1992, changes in disability assumptions and the method for projecting average benefit levels accounted for most of the change in the actuarial balance. In 1993, numerous small changes in assumptions and methods had offsetting effects on the actuarial balance. Changes affecting the actuarial balance shown for the 1994 report are described in section II.F.2 of this report.

E. ACTUARIAL ANALYSIS OF BENEFIT DISBURSEMENTS FROM THE FEDERAL OLD-AGE AND SURVIVORS INSURANCE TRUST FUND WITH RESPECT TO DISABLED BENEFICIARIES

(Required by section 201(c) of the Social Security Act)

Effective January 1957, monthly benefits have been payable from the OASI Trust Fund to disabled children aged 18 and over of retired and deceased workers in those cases for which the disability began before age 18. The age before which disability is required to have begun was subsequently changed to age 22. Effective February 1968, reduced monthly benefits have been payable from this trust fund to disabled widows and widowers at ages 50 and above. Effective January 1991, the requirements for the disability of the widow or widower were made less restrictive.

On December 31, 1993, about 743,000 persons were receiving monthly benefits from the OASI Trust Fund because of their disabilities or the disabilities of children. This total includes 48,000 mothers and fathers (wives or husbands under age 65 of retired-worker beneficiaries and widows or widowers of deceased insured workers) who met all other qualifying requirements and were receiving unreduced benefits solely because they had disabled-child beneficiaries (or disabled children aged 16 or 17) in their care. Benefits paid from this trust fund to the persons described above totaled $3,752 million in calendar year 1993. Table III.E1 shows these and similar figures for selected calendar years during 1960-93, and estimated experience for 1994-2003 based on the intermediate set of assumptions.

TABLE III.E1.—BENEFIT DISBURSEMENTS FROM THE OASI TRUST FUND WITH RESPECT TO DISABLED BENEFICIARIES, SELECTED CALENDAR YEARS 1960-1993, AND ESTIMATED FUTURE DISBURSEMENTS DURING 1994-2003 BASED ON INTERMEDIATE ASSUMPTIONS

[Beneficiaries in thousands; benefit payments in millions]

Calendar year	Disabled beneficiaries, end of year			Amount of benefit payments[1]		
	Total	Children[2]	Widows-widowers[3]	Total	Children[2]	Widows-widowers[4]
Historical data:						
1960	117	117	—	$59	$59	—
1965	214	214	—	134	134	—
1970	316	281	36	301	260	$41
1975	435	376	58	664	560	104
1980	519	460	59	1,223	1,097	126
1985	594	547	47	2,072	1,885	187
1986	614	565	49	2,219	2,022	197
1987	629	580	49	2,331	2,128	203
1988	633	584	49	2,518	2,307	211
1989	651	602	49	2,680	2,459	221
1990	662	613	49	2,882	2,649	233
1991	687	627	61	3,179	2,875	304
1992	715	643	72	3,459	3,079	380
1993	743	662	81	3,752	3,296	456
Estimates:						
1994	776	683	93	4,054	3,520	534
1995	803	705	98	4,356	3,758	598
1996	825	727	98	4,634	4,020	614
1997	847	749	98	4,941	4,301	640
1998	867	769	97	5,258	4,593	665
1999	886	790	97	5,592	4,903	689
2000	905	810	95	5,949	5,236	713
2001	922	829	93	6,329	5,595	734
2002	938	847	91	6,730	5,978	752
2003	953	865	88	7,142	6,375	768

[1]Beginning in 1966, includes payments for vocational rehabilitation services.

[2]Also includes certain mothers and fathers (see text).

[3]In 1984 and later years, only disabled widows and widowers aged 50-59 are included because disabled widows and widowers aged 60-64 would be eligible for the same benefit as a nondisabled aged widow; therefore, they are not receiving benefits solely because of a disability.

[4]In 1983 and prior years, reflects the offsetting effect of lower benefits payable to disabled widows and widowers who continue to receive benefits after attaining age 60 (62, for disabled widowers, prior to 1973) as compared to the higher nondisabled widow's and widower's benefits that would otherwise be payable. In 1984 and later years, only benefit payments to disabled widows and widowers aged 50-59 are included (see footnote 3).

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

Total benefit payments from the OASI Trust Fund with respect to disabled beneficiaries are estimated to increase from $4,054 million in calendar year 1994 to $7,142 million in calendar year 2003, based on the intermediate assumptions.

In calendar year 1993, benefit payments (including expenditures for vocational rehabilitation services) with respect to disabled persons from the OASI Trust Fund and from the DI Trust Fund (including payments from the latter fund to all children and spouses of dis-

abled-worker beneficiaries) totaled $38,378 million. Of this amount, $3,752 million or 9.8 percent represented payments from the OASI Trust Fund. These and similar figures for selected calendar years during 1960-93 and estimates for calendar years 1994-2003 are presented in table III.E2.

TABLE III.E2.—BENEFIT DISBURSEMENTS UNDER THE OASDI PROGRAM WITH RESPECT TO DISABLED BENEFICIARIES, BY TRUST FUND, SELECTED CALENDAR YEARS 1960-1993, AND ESTIMATED FUTURE DISBURSEMENTS DURING 1994-2003 BASED ON INTERMEDIATE ASSUMPTIONS

[Amounts in millions]

Calendar year	Total[1]	DI Trust Fund[2]	OASI Trust Fund	
			Amount[3]	Percentage of total
Historical data:				
1960	$627	$568	$59	9.4
1965	1,707	1,573	134	7.9
1970	3,386	3,085	301	8.9
1975	9,169	8,505	664	7.2
1980	16,738	15,515	1,223	7.3
1985	20,908	18,836	2,072	9.9
1986	22,075	19,856	2,219	10.1
1987	22,858	20,527	2,331	10.2
1988	24,226	21,708	2,518	10.4
1989	25,591	22,911	2,680	10.5
1990	27,717	24,835	2,882	10.4
1991	30,877	27,698	3,179	10.3
1992	34,583	31,124	3,459	10.0
1993	38,378	34,626	3,752	9.8
Estimates:				
1994	42,053	37,999	4,054	9.6
1995	46,168	41,812	4,356	9.4
1996	50,354	45,720	4,634	9.2
1997	54,584	49,643	4,941	9.1
1998	59,288	54,030	5,258	8.9
1999	64,227	58,635	5,592	8.7
2000	69,420	63,471	5,949	8.6
2001	75,079	68,751	6,329	8.4
2002	81,131	74,401	6,730	8.3
2003	87,748	80,606	7,142	8.1

[1]Beginning in 1966, includes payments for vocational rehabilitation services.

[2]Benefit payments to disabled workers and their children and spouses.

[3]Benefit payments to disabled children aged 18 and over, to certain mothers and fathers (see text), and to disabled widows and widowers (see footnote 4, table III.E1).

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

F. FEDERAL REGISTER NOTICE

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Secretary

1994 Cost-of-Living Increase and Other Determinations

AGENCY: Social Security Administration, HHS.

ACTION: Notice.

SUMMARY: The Secretary has determined —

(1) A 2.6 percent cost-of-living increase in Social Security benefits under title II, effective for December 1993;

(2) An increase in the Federal Supplemental Security Income (SSI) monthly benefit amounts under title XVI for 1994 to $446 for an eligible individual, $669 for an eligible individual with an eligible spouse, and $223 for an essential person;

(3) The average of the total wages for 1992 to be $22,935.42;

(4) The Old-Age, Survivors, and Disability Insurance (OASDI) contribution and benefit base to be $60,600 for remuneration paid in 1994 and self-employment income earned in taxable years beginning in 1994;

(5) The monthly exempt amounts under the Social Security retirement earnings test for taxable years ending in calendar year 1994 to be $930 for beneficiaries age 65 through 69 and $670 for beneficiaries under age 65;

(6) The dollar amounts ("bend points") used in the benefit formula for workers who become eligible for benefits in 1994 and in the formula for computing maximum family benefits;

(7) The amount of earnings a person must have to be credited with a quarter of coverage in 1994 to be $620;

(8) The "old-law" contribution and benefit base to be $45,000 for 1994; and

(9) The OASDI fund ratio to be 107.3 percent for 1993.

FOR FURTHER INFORMATION CONTACT: Jeffrey L. Kunkel, Office of the Actuary, Social Security Administration, 6401 Security Boulevard, Baltimore, MD 21235, (410) 965-3013. A summary of the information in this announcement is available in a recorded message by telephoning (410) 965-3053. This telephone message will be updated to reflect changes to the cost-of-living benefit increase and other determinations.

SUPPLEMENTARY INFORMATION: The Secretary is required by the Social Security Act (the Act) to publish within 45 days after the close of the third calendar quarter of 1993 the benefit increase percentage and the revised table of "special minimum" benefits (section 215(i)(2)(D)). Also, the Secretary is required to publish before November 1 the average of the total wages for 1992 (section 215(i)(2)(C)(ii)) and the OASDI fund ratio for 1993 (section 215(i)(2)(C)(ii)). Finally, the Secretary is required to publish on or before November 1 the OASDI contribution and benefit base for 1994 (section 230(a)), the amount of earnings required to be credited with a quarter of coverage in 1994 (section 213(d)(2)), the monthly exempt amounts under the Social Security retirement earnings test for 1994 (section 203(f)(8)(A)), the formula for computing a primary insurance amount for workers who first become eligible for benefits or die in 1994 (section 215(a)(1)(D)), and the formula for computing the maximum amount of benefits payable to the family of a worker who first becomes eligible for old-age benefits or dies in 1994 (section 203(a)(2)(C)).

Cost-of-Living Increases

General. The cost-of-living increase is 2.6 percent for benefits under titles II and XVI of the Act.

Under title II, OASDI benefits will increase by 2.6 percent beginning with the December 1993 benefits, which are payable on January 3, 1994. This increase is based on the authority contained in section 215(i) of the Act (42 U.S.C. 415(i)).

Under title XVI, Federal SSI payment levels will also increase by 2.6 percent effective for payments made for the month of January 1994 but paid on December 30, 1993. This is based on the authority contained in section 1617 of the Act (42 U.S.C. 1382f). The percentage increase effective January 1994 is the same as the title II percentage increase and the annual payment amount is rounded, when not a multiple of $12, to the next lower multiple of $12.

Automatic Benefit Increase Computation. Under section 215(i) of the Act, the third calendar quarter of 1993 is a cost-of-living computation quarter for all the purposes of the Act. The Secretary is, therefore, required to increase benefits, effective with December 1993, for individuals entitled under section 227 or 228 of the Act, to increase primary insurance amounts of all other individuals entitled under title II of the Act, and to increase maximum benefits payable to a family. For December 1993, the benefit increase is the percentage increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers from the third quarter of 1992 through the third quarter of 1993.

Section 215(i)(1) of the Act provides that the Consumer Price Index for a cost-of-living computation quarter shall be the arithmetic mean of this index for the 3 months in that quarter. The Department of Labor's Consumer Price Index for Urban Wage

Earners and Clerical Workers for each month in the quarter ending September 30, 1992, was: for July 1992, 138.4; for August 1992, 138.8; and for September 1992, 139.1. The arithmetic mean for this calendar quarter is 138.8 (after rounding to the nearest 0.1). The corresponding Consumer Price Index for each month in the quarter ending September 30, 1993, was: for July 1993, 142.1; for August 1993, 142.4; and for September 1993, 142.6. The arithmetic mean for this calendar quarter is 142.4. Thus, because the Consumer Price Index for the calendar quarter ending September 30, 1993, exceeds that for the calendar quarter ending September 30, 1992 by 2.6 percent, a cost-of-living benefit increase of 2.6 percent is effective for benefits under title II of the Act beginning December 1993.

Title II Benefit Amounts. In accordance with section 215(i) of the Act, in the case of insured workers and family members for whom eligibility for benefits (i.e., the worker's attainment of age 62, or disability or death before age 62) occurred before 1994, benefits will increase by 2.6 percent beginning with benefits for December 1993 which are payable on January 3, 1994. In the case of first eligibility after 1993, the 2.6 percent increase will not apply.

For eligibility after 1978, benefits are generally determined by a benefit formula provided by the Social Security Amendments of 1977 (Pub. L. 95-216), as described later in this notice.

For eligibility before 1979, benefits are determined by means of a benefit table. In accordance with section 215(i)(4) of the Act, the primary insurance amounts and the maximum family benefits shown in this table are revised by (1) increasing by 2.6 percent the corresponding amounts established by the last cost-of-living increase and the last extension of the benefit table made under section 215(i)(4) (to reflect the increase in the OASDI contribution and benefit base for 1993); and (2) by extending the table to reflect the higher monthly wage and related benefit amounts now possible under the increased contribution and benefit base for 1994, as described later in this notice. A copy of this table may be obtained by writing to: Social Security Administration, Office of Public Inquiries, 4100 Annex, Baltimore, MD 21235.

Section 215(i)(2)(D) of the Act also requires that, when the Secretary determines an automatic increase in Social Security benefits, the Secretary shall publish in the FEDERAL REGISTER a revision of the range of the primary insurance amounts and corresponding maximum family benefits based on the dollar amount and other provisions described in section 215(a)(1)(C)(i). These benefits are referred to as "special minimum" benefits and are payable to certain individuals with long periods of relatively low earnings. To qualify for such benefits, an individual must have at least 11 "years of coverage." To earn a year of coverage for purposes of the special minimum, a person must earn at least a certain proportion (25 percent for years before 1991, and 15 percent for years after 1990) of the "old-law" contribution and benefit base. In accordance with section 215(a)(1)(C)(i), the table below shows the revised range of primary insurance amounts and corresponding maximum family benefit amounts after the 2.6 percent benefit increase.

SPECIAL MINIMUM PRIMARY INSURANCE AMOUNTS AND MAXIMUM FAMILY BENEFITS

Primary insurance amount payable for Dec. 1992	No. of years required minimum earnings level	Primary insurance amount payable for Dec. 1993	Maximum family benefit payable for Dec. 1993
$24.50	11	$25.10	$37.80
48.90	12	50.10	75.70
73.70	13	75.60	113.80
98.30	14	100.80	151.50
122.90	15	126.00	189.10
147.50	16	151.30	227.50
172.20	17	176.60	265.40
196.90	18	202.00	303.20
221.50	19	227.20	341.10
246.00	20	252.30	378.90
270.90	21	277.90	417.10
295.40	22	303.00	454.90
320.20	23	328.50	493.40
344.80	24	353.70	531.10
369.30	25	378.90	568.70
394.20	26	404.40	607.20
418.90	27	429.70	645.00
443.30	28	454.80	682.70
467.90	29	480.00	720.80
492.50	30	505.30	758.50

Section 227 of the Act provides flat-rate benefits to a worker who became age 72 before 1969 and was not insured under the usual requirements, and to his or her spouse or surviving spouse. Section 228 of the Act provides similar benefits at age 72 for certain uninsured persons. The current monthly benefit amount of $178.80 for an individual under sections 227 and 228 of the Act is increased by 2.6 percent to obtain the new amount of $183.40. The present monthly benefit amount of $89.50 for a spouse under section 227 is increased by 2.6 percent to $91.80.

Title XVI Benefit Amounts. In accordance with section 1617 of the Act, Federal SSI benefit amounts for the aged, blind, and disabled are increased by 2.6 percent effective January 1994. Therefore, the yearly Federal SSI benefit amounts of $5,208 for an eligible individual, $7,824 for an eligible individual with an eligible spouse, and $2,604 for an essential person, which became effective January 1993, are increased, effective January 1994, to $5,352, $8,028, and $2,676, respectively, after rounding. The corresponding monthly amounts for 1994 are determined by dividing the yearly amounts by 12, giving $446, $669, and $223, respectively. The monthly amount is reduced by subtracting monthly countable income. In the case of an eligible individual with an eligible spouse, the amount payable is further divided equally between the two spouses.

Average of the Total Wages for 1992

General. Under various provisions of the Act, several amounts are scheduled to increase automatically for 1994. These include (1) the OASDI contribution and benefit base, (2) the retirement test exempt amounts, (3) the dollar amounts, or "bend points," in the primary insurance amount and maximum family benefit formulas, (4) the amount of earnings required for a worker to be credited with a quarter of coverage, and (5) the "old law" contribution and benefit base (as determined under section 230 of the Act as in effect before the 1977 amendments). These amounts are based on the increase in the average of the total wages.

Computation. The determination of the average wage figure for 1992 is based on the 1991 average wage figure of $21,811.60 announced in the FEDERAL REGISTER on October 27, 1992 (57 FR 48619), along with the percentage increase in average wages from 1991 to 1992 measured by annual wage data tabulated by the Social Security Administration (SSA). The wage data tabulated by SSA include contributions to deferred compensation plans, as required by section 209(k) of the Act. The average amounts of wages calculated directly from this data were $20,923.84 and $22,001.92 for 1991 and 1992, respectively. To determine an average wage figure for 1992 at a level that is consistent with the series of average wages for 1951 through 1977 (published December 29, 1978, at 43 FR 61016), we multiplied the 1991 average wage figure of $21,811.60 by the percentage increase in average wages from 1991 to 1992 (based on SSA-tabulated wage data) as follows (with the result rounded to the nearest cent):

Amount. Average wage for 1992 = $21,811.60 × $22,001.92 ÷ $20,923.84 = $22,935.42. Therefore, the average wage for 1992 is determined to be $22,935.42.

OASDI Contribution and Benefit Base

General. The OASDI contribution and benefit base is $60,600 for remuneration paid in 1994 and self-employment income earned in taxable years beginning in 1994.

The OASDI contribution and benefit base serves two purposes:

(a) It is the maximum annual amount of earnings on which OASDI taxes are paid. The OASDI tax rate for remuneration paid in 1994 is set by statute at 6.2 percent for employees and employers, each. The OASDI tax rate for self-employment income earned in taxable years beginning in 1994 is 12.4 percent.

(b) It is the maximum annual amount

used in determining a person's OASDI benefits.

Computation. Section 230(c) of the Act provides a table with the contribution and benefit base for each year 1978, 1979, 1980, and 1981. For years after 1981, section 230(b) of the Act contains a formula for determining the OASDI contribution and benefit base. Under the prescribed formula, the base for 1994 shall be equal to the 1993 base of $57,600 multiplied by the ratio of (1) the average amount, per employee, of total wages for calendar year 1992 to (2) the average amount of those wages for calendar year 1991. Section 230(b) further provides that if the amount so determined is not a multiple of $300, it shall be rounded to the nearest multiple of $300.

Average Wages. The average wage for calendar year 1991 was previously determined to be $21,811.60. The average wage for calendar year 1992 has been determined to be $22,935.42, as stated above.

Amount. The ratio of the average wage for 1992, $22,935.42, compared to the average wage for 1991, $21,811.60, is 1.051524. Multiplying the 1993 OASDI contribution and benefit base amount of $57,600 by the ratio of 1.051524 produces the amount of $60,567.78 which must then be rounded to $60,600. Accordingly, the OASDI contribution and benefit base is determined to be $60,600 for 1994.

Repeal of the Hospital Insurance Contribution Base

Section 13207 of Pub. L. 103-66 (the Omnibus Budget Reconciliation Act of 1993) repealed the limitation on the amount of earnings subject to the Hospital Insurance (HI) tax beginning with calendar year 1994. This amount of earnings, called the HI contribution base, had been subject to automatic annual increases based on increases in the average of the total wages. The HI tax is now due on the total remuneration paid in 1994, at the rate of 1.45 percent for employees and employers, each, and on self-employment income earned in taxable years beginning in 1994, at the rate of 2.9 percent.

Retirement Earnings Test Exempt Amounts

General. Social Security benefits are withheld when a beneficiary under age 70 has earnings in excess of the retirement earnings test exempt amount. A formula for determining the monthly exempt amounts is provided in section 203(f)(8)(B) of the Act. The 1993 monthly exempt amounts were determined by the formula to be $880 for beneficiaries aged 65-69 and $640 for beneficiaries under age 65. Thus, the annual exempt amounts for 1993 were set at $10,560 and $7,680, respectively. For beneficiaries aged 65-69, $1 in benefits is withheld for every $3 of earnings in excess of the annual exempt amount. For beneficiaries under age 65, $1 in benefits is withheld for every $2 of earnings in excess of the annual exempt amount.

Computation. Under the formula provided in section 203(f)(8)(B) of the Act, each monthly exempt amount for 1994 shall be the corresponding 1993 monthly exempt amount multiplied by the ratio of (1) the average amount, per employee, of the total wages for calendar year 1992 to (2) the average amount of those wages for calendar year 1991. The section further provides that if the amount so determined is not a multiple of $10, it shall be rounded to the nearest multiple of $10.

Average Wages. The average wage for 1992, as determined above, is $22,935.42. Therefore, the ratio of the average wages for 1992, $22,935.42, compared to that for 1991, $21,811.60, is 1.051524.

Exempt Amount for Beneficiaries Aged 65 Through 69. Multiplying the 1993 retirement earnings test monthly exempt amount of $880 by the ratio of 1.051524 produces the amount of $925.34. This must then be rounded to $930. The retirement earnings test monthly exempt amount for beneficiaries aged 65 through 69 is determined to be $930 for 1994. The corresponding retirement earnings test annual exempt amount for these beneficiaries is $11,160.

Exempt Amount for Beneficiaries Under Age 65. Multiplying the 1993 retirement earnings test monthly exempt amount of $640 by the ratio 1.051524 produces the amount of $672.98. This must then be rounded to $670. The retirement earnings test monthly exempt amount for beneficiaries under age 65 is thus determined to be $670 for 1994. The corresponding retirement earnings test annual exempt amount for these beneficiaries is $8,040.

Computing Benefits After 1978

General. The Social Security Amendments of 1977 provided a method for computing benefits which generally applies when a worker first becomes eligible for benefits after 1978. This method uses the worker's "average indexed monthly earnings" to compute the primary insurance amount. The computation formula is adjusted automatically each year to reflect changes in general wage levels.

A worker's earnings are adjusted, or "indexed," to reflect the change in general wage levels that occurred during the worker's years of employment. Such indexation ensures that a worker's future benefits reflect the general rise in the standard of living that occurs during his or her working lifetime. A certain number of

years of earnings are needed to compute the average indexed monthly earnings. After the number of years is determined, those years with the highest indexed earnings are chosen, the indexed earnings are summed, and the total amount is divided by the total number of months in those years. The resulting average amount is then rounded down to the next lower dollar amount. The result is the average indexed monthly earnings.

For example, to compute the average indexed monthly earnings for a worker attaining age 62, becoming disabled before age 62, or dying before attaining age 62, in 1994, the average of the total wages for 1992, $22,935.42, is divided by the average of the total wages for each year prior to 1992 in which the worker had earnings. The actual wages and self-employment income, as defined in section 211(b) of the Act and credited for each year, is multiplied by the corresponding ratio to obtain the worker's indexed earnings for each year before 1992. Any earnings in 1992 or later are considered at face value, without indexing. The average indexed monthly earnings is then computed and used to determine the worker's primary insurance amount for 1994.

Computing the Primary Insurance Amount. The primary insurance amount is the sum of three separate percentages of portions of the average indexed monthly earnings. In 1979 (the first year the formula was in effect), these portions were the first $180, the amount between $180 and $1,085, and the amount over $1,085. The dollar amounts in the formula which govern the portions of the average indexed monthly earnings are frequently referred to as the "bend points" of the formula. Thus, the bend points for 1979 were $180 and $1,085.

The bend points for 1994 are obtained by multiplying the corresponding 1979 bend-point amounts by the ratio between the average of the total wages for 1992, $22,935.42, and for 1977, $9,779.44. These results are then rounded to the nearest dollar. For 1994, the ratio is 2.3452693. Multiplying the 1979 amounts of $180 and $1,085 by 2.3452693 produces the amounts of $422.15 and $2,544.62. These must then be rounded to $422 and $2,545. Accordingly, the portions of the average indexed monthly earnings to be used in 1994 are determined to be the first $422, the amount between $422 and $2,545, and the amount over $2,545.

Consequently, for individuals who first become eligible for old-age insurance benefits or disability insurance benefits in 1994, or who die in 1994 before becoming eligible for benefits, we will compute their primary insurance amount by adding the following:

(a) 90 percent of the first $422 of their average indexed monthly earnings, plus

(b) 32 percent of the average indexed monthly earnings over $422 and through $2,545, plus

(c) 15 percent of the average indexed monthly earnings over $2,545.

This amount is then rounded to the next lower multiple of $.10 if it is not already a multiple of $.10. This formula and the adjustments we have described are contained in section 215(a) of the Act (42 U.S.C. 415(a)).

Maximum Benefits Payable to a Family

General. The 1977 amendments continued the long established policy of limiting the total monthly benefits which a worker's family may receive based on his or her primary insurance amount. Those amendments also continued the then existing relationship between maximum family benefits and primary insurance amounts but did change the method of computing the maximum amount of benefits which may be paid to a worker's family. The Social Security Disability Amendments of 1980 (Pub. L. 96-265) established a new formula for computing the maximum benefits payable to the family of a disabled worker. This new formula is applied to the family benefits of workers who first become entitled to disability insurance benefits after June 30, 1980, and who first become eligible for these benefits after 1978. The new formula was explained in a final rule published in the FEDERAL REGISTER on May 8, 1981, at 46 FR 25601. For disabled workers initially entitled to disability benefits before July 1980, or whose disability began before 1979, the family maximum payable is computed the same as the old-age and survivor family maximum.

Computing the Old-Age and Survivor Family Maximum. The formula used to compute the family maximum is similar to that used to compute the primary insurance amount. It involves computing the sum of four separate percentages of portions of the worker's primary insurance amount. In 1979, these portions were the first $230, the amount between $230 and $332, the amount between $332 and $433, and the amount over $433. The dollar amounts in the formula which govern the portions of the primary insurance amount are frequently referred to as the "bend points" of the family-maximum formula. Thus, the bend points for 1979 were $230, $332, and $433.

The bend points for 1994 are obtained by multiplying the corresponding 1979 bend-point amounts by the ratio between the average of the total wages for 1992,

$22,935.42, and the average for 1977, $9,779.44. This amount is then rounded to the nearest dollar. For 1994, the ratio is 2.3452693. Multiplying the amounts of $230, $332, and $433 by 2.3452693 produces the amounts of $539.41, $778.63, and $1,015.50. These amounts are then rounded to $539, $779, and $1,016. Accordingly, the portions of the primary insurance amounts to be used in 1994 are determined to be the first $539, the amount between $539 and $779, the amount between $779 and $1,016, and the amount over $1,016.

Consequently, for the family of a worker who becomes age 62 or dies in 1994 before age 62, the total amount of benefits payable to them will be computed so that it does not exceed:

(a) 150 percent of the first $539 of the worker's primary insurance amount, plus

(b) 272 percent of the worker's primary insurance amount over $539 through $779, plus

(c) 134 percent of the worker's primary insurance amount over $779 through $1,016, plus

(d) 175 percent of the worker's primary insurance amount over $1,016.

This amount is then rounded to the next lower multiple of $.10 if it is not already a multiple of $.10. This formula and the adjustments we have described are contained in section 203(a) of the Act (42 U.S.C. 403(a)).

Quarter of Coverage Amount

General. The 1994 amount of earnings required for a quarter of coverage is $620. A quarter of coverage is the basic unit for determining whether a worker is insured under the Social Security program. For years before 1978, an individual generally was credited with a quarter of coverage for each quarter in which wages of $50 or more were paid, or an individual was credited with 4 quarters of coverage for every taxable year in which $400 or more of self-employment income was earned. Beginning in 1978, wages generally are no longer reported on a quarterly basis; instead, annual reports are made. With the change to annual reporting, section 352(b) of the Social Security Amendments of 1977 (Pub. L. 95-216) amended section 213(d) of the Act to provide that a quarter of coverage would be credited for each $250 of an individual's total wages and self-employment income for calendar year 1978 (up to a maximum of 4 quarters of coverage for the year).

Computation. Under the prescribed formula, the quarter of coverage amount for 1994 shall be equal to the 1978 amount of $250 multiplied by the ratio of (1) the average amount, per employee, of total wages for calendar year 1992 to (2) the average amount of those wages reported for calendar year 1976. The section further provides that if the amount so determined is not a multiple of $10, it shall be rounded to the nearest multiple of $10.

Average Wages. The average wage for calendar year 1976 was previously determined to be $9,226.48. This was published in the FEDERAL REGISTER on December 29, 1978, at 43 FR 61016. The average wage for calendar year 1992 has been determined to be $22,935.42 as stated above.

Quarter of Coverage Amount. The ratio of the average wage for 1992, $22,935.42, compared to that for 1976, $9,226.48, is 2.4858256. Multiplying the 1978 quarter of coverage amount of $250 by the ratio of 2.4858256 produces the amount of $621.46, which must then be rounded to $620. Accordingly, the quarter of coverage amount is determined to be $620 for 1994.

"Old-Law" Contribution and Benefit Base

General. The 1994 "old-law" contribution and benefit base is $45,000. This is the base that would have been effective under the Act without the enactment of the 1977 amendments. The base is computed under section 230(b) of the Act as it read prior to the 1977 amendments.

The "old-law" contribution and benefit base is used by:

(a) the Railroad Retirement program to determine certain tax liabilities and tier II benefits payable under that program to supplement the tier I payments which correspond to basic Social Security benefits,

(b) the Pension Benefit Guaranty Corporation to determine the maximum amount of pension guaranteed under the Employee Retirement Income Security Act (as stated in section 230(d) of the Act),

(c) Social Security to determine a year of coverage in computing the special minimum benefit, as described earlier, and

(d) Social Security to determine a year of coverage (acquired whenever earnings equal or exceed 25 percent of the "old-law" base for this purpose only) in computing benefits for persons who are also eligible to receive pensions based on employment not covered under section 210 of the Act.

Computation. The base is computed using the automatic adjustment formula in section 230(b) of the Act as it read prior to the enactment of the 1977 amendments. Under the formula, the "old-law" contribution and benefit base shall be the "old-law" 1993 base multiplied by the ratio of (1) the average amount, per employee, of total wages for calendar year 1992 to (2) the average amount of those wages for calendar year 1991. If the amount so determined is not a

multiple of $300, it shall be rounded to the nearest multiple of $300.

Average Wages. The average wage for calendar year 1991 was previously determined to be $21,811.60. The average wage for calendar year 1992 has been determined to be $22,935.42, as stated above.

Amount. The ratio of the average wage for 1992, $22,935.42, compared to the average wage for 1991, $21,811.60, is 1.051524. Multiplying the 1993 "old-law" contribution and benefit base amount of $42,900 by the ratio of 1.051524 produces the amount of $45,110.38 which must then be rounded to $45,000. Accordingly, the "old-law" contribution and benefit base is determined to be $45,000 for 1994.

OASDI Fund Ratio

General. Section 215(i) of the Act provides for automatic cost-of- living increases in OASDI benefit amounts. This section also includes a "stabilizer" provision that can limit the automatic OASDI benefit increase under certain circumstances. If the combined assets of the OASI and DI Trust Funds, as a percentage of annual expenditures, are below a specified threshold, the automatic benefit increase is equal to the lesser of (1) the increase in average wages or (2) the increase in prices. The threshold specified for the OASDI fund ratio is 20.0 percent for benefit increases for December of 1989 and later. The law also provides for subsequent "catch-up" benefit increases for beneficiaries whose previous benefit increases were affected by this provision. "Catch-up" benefit increases can occur only when trust fund assets exceed 32.0 percent of annual expenditures.

Computation. Section 215(i) specifies the computation and application of the OASDI fund ratio. The OASDI fund ratio for 1993 is the ratio of (1) the combined assets of the OASI and DI Trust Funds at the beginning of 1993 to (2) the estimated expenditures of the OASI and DI Trust Funds during 1993, excluding transfer payments between the OASI and DI Trust Funds, and reducing any transfers to the Railroad Retirement Account by any transfers from that account into either trust fund.

Ratio. The combined assets of the OASI and DI Trust Funds at the beginning of 1993 equaled $331,473 million, and the expenditures are estimated to be $308,904 million. Thus, the OASDI fund ratio for 1993 is 107.3 percent, which exceeds the applicable threshold of 20.0 percent. Therefore, the stabilizer provision does not affect the benefit increase for December 1993. Although the OASDI fund ratio exceeds the 32.0-percent threshold for potential "catch-up" benefit increases, no past benefit increase has been reduced under the stabilizer provision. Thus, no "catch-up" benefit increase is required.

(Catalog of Federal Domestic Assistance: Program Nos. 93.802 Social Security-Disability Insurance; 93.803 Social Security-Retirement Insurance; 93.804 Social Security-Special Benefits for Persons Aged 72 and Over; 93.805 Social Security-Survivors Insurance; 93.807 Supplemental Security Income.)

Dated: October 22, 1993

Donna E. Shalala,

Secretary of Health and Human Services

[FR Doc. 93-26549 Filed 10-27-93; 8:45am]

BILLING CODE 4190-29-M

This material was published in the Federal Register on October 28, 1993, at 58 FR 58004.

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.

Adjusted gross income—AGI. Amount of income potentially subject to Federal income taxation, before consideration of exemptions and deductions.

Administrative expenses. Expenses incurred by the Department of Health and Human Services and the Department of the Treasury in administering the OASDI program and the provisions of the Internal Revenue Code relating to the collection of contributions. Such administrative expenses are paid from the OASI and DI Trust Funds.

Advance tax transfers. Amounts representing the estimated total OASDI tax contributions for a given month. From May 1983 through November 1990, such amounts were credited to the OASI and DI Trust Funds at the beginning of each month. Reimbursements were made from the trust funds to the general fund of the Treasury for the associated loss of interest. Advance tax transfers are no longer made unless needed in order to pay benefits.

Advisory Council on Social Security. Under the Social Security Act, an Advisory Council is appointed every 4 years to study and review the financial status of the OASDI and Medicare programs. The most recent Advisory Council was appointed in 1989 and issued its reports in 1991. The next Advisory council is expected to be named in 1994.

Alternatives I, II, or III. See "Assumptions."

Annual balance. The difference between the income rate and the cost rate in a given year.

Assets. Treasury notes and bonds, other securities guaranteed by the Federal Government, certain Federally sponsored agency obligations, and cash, held by the trust funds for investment purposes.

Assumptions. Values relating to future trends in certain key factors which 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) Alternative I is characterized as a "low cost" set—it assumes relatively rapid economic growth, low inflation, and favorable

(from the standpoint of program financing) demographic conditions.

(2) Alternative II is the "intermediate" set of assumptions, and represents the Trustees' "best estimates" of likely future economic and demographic conditions.

(3) Alternative III, characterized as a "high cost" set, assumes slow economic growth, more rapid inflation, and financially disadvantageous demographic conditions.

See tables II.D1 and II.D2.

Automatic cost-of-living increase. The annual increase in benefits, effective for December, reflecting the increase in the cost of living. The benefit increase equals the percentage increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers measured from the average over July, August, and September of the preceding year to the average for the same 3 months in the current year. If the increase is less than one-tenth of 1 percent, when rounded, there is no automatic increase for the current year; the increase for the next year would reflect the increase in the cost of living over a 2-year period. See table II.E2. If the "stabilizer provision" applies, the increase may be less than the cost of living.

Auxiliary beneficiary. Monthly benefits payable to a spouse or child of a retired or disabled worker, or to a survivor of a deceased worker.

Average indexed monthly earnings—AIME. The amount of earnings used in determining the primary insurance amount (PIA) for most workers who attain age 62, become disabled, or die after 1978. A worker's actual past earnings are adjusted by changes in the "average wage index," in order to bring them up to their approximately equivalent value at the time of retirement or other eligibility for benefits.

Average wage index. The average amount of total wages for each year after 1950, including wages in noncovered employment and wages in covered employment in excess of the OASDI contribution and benefit base. These amounts are used to index the earnings of most workers first becoming eligible for benefits in 1979 or later, and for automatic adjustments in the contribution and benefit base, bend points, earnings test exempt amounts, and other wage-indexed amounts. See tables II.E1, II.E2, and III.B1.

Award. An administrative determination that an individual is entitled to receive a specified type of OASDI benefit. Awards can represent not only new entrants to the benefit rolls but also persons already on the rolls who become entitled to a different type of benefit. Awards usually result in the immediate payment of benefits, although payments may be deferred or withheld depending on the individual's particular circumstances.

Baby boom. The period from the end of World War II through the mid-1960s marked by unusually high birth rates.

Bend points. The dollar amounts defining the AIME or PIA brackets

in the benefit formulas. For the bend points for years 1979 and later, see table II.E3.

Beneficiary. A person who has been awarded benefits on the basis of his or her own or another's earnings record. The benefits may be either in current-payment status or withheld.

Benefit award. See "Award."

Benefit payments. The amounts disbursed for OASI and DI benefits by the Department of the Treasury in specified periods.

Benefit termination. See "Termination."

Best estimate assumptions. See "Assumptions."

Board of Trustees. A Board established by the Social Security Act to oversee the financial operations of the Federal Old-Age and Survivors Insurance Trust Fund and the Federal Disability Insurance Trust Fund. The Board is composed of five members, three of whom serve automatically by virtue of their positions in the Federal Government: the Secretary of the Treasury, the Secretary of Labor, and the Secretary of Health and Human Services. The other two members are appointed by the President as public representatives: Stanford G. Ross and David M. Walker are currently serving 4-year terms that began on October 2, 1990. The Commissioner of Social Security serves as Secretary of the Board of Trustees.

Book value. A bond's value between its price at purchase and its value at maturity. Book value is calculated as par value plus unamortized premium, if purchased at a price above its par value, or less unamortized discount, if purchased below par.

COLA. See "Automatic cost-of-living increase."

Constant dollars. One or more financial amounts adjusted by the CPI to a constant year as a reference point.

Consumer Price Index—CPI. Relative measure of inflation. In this report, all references to the CPI relate to the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W). See table II.D1.

Contribution and benefit base. Annual dollar amount above which earnings in employment covered under the OASDI program are neither taxable nor creditable for benefit computation purposes. (Also referred to as "maximum contribution and benefit base," "annual creditable maximum," "taxable maximum," and "maximum taxable.") See tables II.B1 and II.E2. See also, "HI contribution base."

Contributions. The amount based on a percent of earnings, up to an annual maximum, that must be paid by—

(1) employers and employees on wages from employment under the Federal Insurance Contributions Act,

(2) the self-employed on net earnings from self-employment under the Self-Employment Contributions Act, and

(3) States on the wages of State and local government employees covered under the Social Security Act through voluntary agreements under section 218 of the Act.

Generally, employers withhold contributions from wages, add an

equal amount of contributions, and pay both on a current basis. Also referred to as "taxes."

Cost-of-living increase. See "Automatic cost-of-living increase."

Cost rate. The cost rate for a year is the ratio of the cost (also called outgo, expenditures, or disbursements) of the program to the taxable payroll for the year. In this context, the outgo is defined to include benefit payments, special monthly payments to certain uninsured persons who have 3 or more quarters of coverage (and whose payments are therefore not reimbursable from the general fund of the Treasury), administrative expenses, net transfers from the trust funds to the Railroad Retirement program under the financial-interchange provisions, and payments for vocational rehabilitation services for disabled beneficiaries; it excludes special monthly payments to certain uninsured persons whose payments are reimbursable from the general fund of the Treasury (as described above), and transfers under the interfund borrowing provisions.

Covered earnings. Earnings in employment covered by the OASDI program.

Covered employment. All employment and self-employment creditable for Social Security purposes. Almost every kind of employment and self-employment is covered under the program. 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. In a few situations, for example, ministers or self-employed members of certain religious groups, workers can opt out of coverage.

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.

Current-cost financing. See "Pay-as-you-go financing."

Current dollars. Amounts expressed in nominal dollars with no adjustment for inflationary changes in the value of the dollar over time.

Current-payment status. Status of a beneficiary for whom a benefit is being paid for a given month (with or without deductions, provided the deductions add to less than a full month's benefit). A benefit in current-payment status for a month is usually payable on the third day of the following month.

Deemed wage credit. See "Military service wage credits."

Demographic assumptions. See "Assumptions."

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 age 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 benefit.

Disability incidence rate. The proportion of workers in a given year, insured for but not receiving disability benefits, who apply for and are awarded disability benefits.

Disability Insurance (DI) Trust Fund. See "Trust fund."

Disability termination rate. The proportion of disabled worker beneficiaries in a given year whose disability benefits terminate as a result of the individual's recovery, death, or attainment of normal retirement age.

Disabled-worker benefit. A monthly benefit payable to a disabled worker under normal retirement age and insured for disability. Before November 1960, disability benefits were limited to disabled workers aged 50-64.

Earnings. Unless otherwise qualified, all wages from employment and net earnings from self-employment, whether or not taxable or covered.

Earnings test. The provision requiring the withholding of benefits if beneficiaries under age 70 have earnings in excess of certain exempt amounts. See table II.E3.

Economic assumptions. See "Assumptions."

Effective interest rate. See "Interest rate."

Excess wages. Wages in excess of the contribution and benefit base on which a worker initially pays taxes (usually as a result of working for more than one employer during a year). Employee taxes on excess wages are refunded to affected employees, while the employer taxes are not refunded.

Federal Insurance Contributions Act—FICA. Provision authorizing taxes on the wages of employed persons to provide for Retirement, Survivors, and Disability Insurance, and for Hospital Insurance. The tax is paid in equal amounts by workers and their employers.

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 it would have been in if railroad employment had always been covered under Social Security.

Fiscal year. The accounting year of the United States Government. Since 1976, each fiscal year has begun on October 1 of the prior calendar year and ended the following September 30. For example, fiscal year 1994 began October 1, 1993 and will end September 30, 1994.

Full advance funding. A financing scheme where taxes or contributions are established to match the full cost of future benefits as these costs are incurred through current service. Such financing methods also provide for amortization over a fixed period of any financial liability that is incurred at the beginning of the program

(or subsequent modification) as a result of granting credit for past service.

General fund of the Treasury. Funds held by the Treasury of the United States, other than receipts collected for a specific purpose (such as Social Security) and maintained in a separate account for that purpose.

General fund reimbursements. Transfers from the general fund of the Treasury to the trust funds for specific purposes defined in the law, including:

(1) The costs associated with providing special payments made to uninsured persons who attained age 72 before 1968, and who had fewer than 3 quarters of coverage.

(2) Payments corresponding to the employee-employer taxes on deemed wage credits for military personnel.

(3) Interest on checks which are not negotiated 6 months after the month of issue. (For checks issued before October, 1989, the principal was returned to the trust funds as a general fund reimbursement; since that time, the principal amount is automatically returned to the issuing fund when the check is uncashed after a year.)

(4) Administrative expenses incurred as a result of furnishing information on deferred vested benefits to pension plan participants, as required by the Employee Retirement Income Security Act of 1974 (Public Law 93-406).

Gross Domestic Product. The total dollar value of all goods and services produced by labor and property located in the United States, regardless of who supplies the labor or property.

Gross National Product. The total dollar value of all goods and services produced by labor and property supplied by United States residents, regardless of the location in which the production occurs.

HI contribution base. Annual dollar amount above which earnings in employment covered under the HI program are not taxable. (Also referred to as "maximum contribution base," "taxable maximum," and "maximum taxable.") Beginning in 1994, the HI contribution base is eliminated.

High cost assumptions. See "Assumptions."

Hospital Insurance (HI) Trust Fund. See "Trust fund."

Income rate. Ratio of income from tax revenues on a liability basis (payroll tax contributions and income from the taxation of benefits) to the OASDI taxable payroll for the year.

Inflation. An increase in the volume of money and credit relative to available goods, resulting in an increase in the general price level.

Insured status. The state or condition of having sufficient quarters of coverage to meet the eligibility requirements for retired-worker or disabled-worker benefits, or to permit the worker's spouse and children or survivors to establish eligibility for benefits in the event of his or her disability, retirement, or death. See "Quarters of coverage."

Interfund borrowing. The borrowing of assets by a trust fund (OASI, DI, or HI) from another of the trust funds when the first fund

is in danger of exhaustion. Interfund borrowing was permitted by the Social Security Act only during 1982 through 1987; all amounts borrowed were to be repaid prior to the end of 1989. The only exercise of this authority occurred in 1982, when the OASI Trust Fund borrowed assets from the DI and HI Trust Funds. The final repayment of borrowed amounts occurred in 1986.

Interest. A payment in exchange for the use of money during a specified period.

Interest rate. Interest rates on new public-debt obligations issuable to Federal trust funds (see "Special public-debt obligation") are determined monthly. Such rates are set equal to the average market yield on all outstanding marketable U.S. securities not due to mature for at least 4 years from the date of the determination. See table II.D1 for historical and assumed future interest rates on new special-issue securities. The "effective" interest rate for a trust fund is the ratio of the interest earned by the fund over a given period of time to the average level of assets held by the fund during the period. The effective rate of interest thus represents a measure of the overall average interest earnings on the fund's portfolio of assets.

Intermediate assumptions. See "Assumptions."

Long range. The next 75 years. Long-range actuarial estimates are made for this period because it is approximately the maximum remaining lifetime of current Social Security participants.

Low cost assumptions. See "Assumptions."

Lump-sum death benefit. A lump sum, generally $255, payable on the death of a fully or currently insured worker. The lump sum is payable to the surviving spouse of the worker, under most circumstances, or to the worker's children.

Maximum family benefit. The maximum monthly amount that can be paid on a worker's earnings record. Whenever the total of the individual monthly benefits payable to all the beneficiaries entitled on one earnings record exceeds the maximum, each dependent's or survivor's benefit is proportionately reduced to bring the total within the maximum. Benefits payable to divorced spouses or surviving divorced spouses are not reduced under the family maximum provision.

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, people receiving Social Security Disability Insurance payments for 2 years, and people with End-Stage Renal Disease. Medicare consists of two separate but coordinated programs— Part A (Hospital Insurance, HI) and Part B (Supplementary Medical Insurance, SMI). All persons entitled to HI are eligible to enroll in the SMI program on a voluntary basis by paying a monthly premium. Health insurance protection is available to Medicare beneficiaries without regard to income.

Military service wage credits. Credits recognizing that military personnel receive wages in kind (such as food and shelter) in addition to their basic pay and other cash payments. 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 the contributory credits for basic pay, noncontributory wage credits of $300 were granted for each calendar quarter, from January 1957 through December 1977, in which a person received pay for military service. In years after 1977, noncontributory wage credits of $100 are granted for each $300 of military wages, up to a maximum credit of $1,200 per calendar year.

Normal retirement age. The age at which a person may first become entitled to unreduced retirement benefits. Currently age 65, but scheduled under present law to increase gradually to 67 for persons reaching that age in 2027 or later, beginning with an increase to 65 years and 2 months for persons reaching age 65 in 2003.

Old-Age and Survivors Insurance (OASI) Trust Fund. See "Trust fund."

Old-law base. Amount the contribution and benefit base would have been if the discretionary increases in the base under the 1977 amendments had not been enacted. The Social Security Amendments of 1972 provided for automatic annual indexing of the contribution and benefit base. The Social Security Amendments of 1977 provided ad hoc increases to the bases for 1979-81, with subsequent bases updated in accordance with the normal indexing procedure.

Par value. The value printed on the face of a bond. For both public and special issues held by the trust funds, par value is also the redemption value at maturity.

Partial advance funding. A financing scheme where taxes are scheduled to provide a substantial accumulation of trust fund assets, thereby generating additional interest income to the trust funds and reducing the need for payroll tax increases in periods when costs are relatively high. (Higher general taxes or additional borrowing may be required, however, to support the payment of such interest.) While substantial, the trust fund build-up under partial advance funding is much smaller than it would be with full advance funding.

Pay-as-you-go financing. A financing scheme where 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 economic fluctuations.

Payroll taxes. A tax levied on the gross wages of workers. See tables II.B1 and III.A1.

Population in the Social Security Area. The population comprised of (i) residents of the 50 States and the District of Columbia (adjusted for net census undercount); (ii) civilian residents of Puerto Rico, the Virgin Islands, Guam, and American Samoa; (iii) Federal civilian employees and persons in the Armed Forces abroad and their dependents; (iv) crew members of merchant vessels; and (v) all other U.S. citizens abroad.

Present value. The equivalent value, at the present time, of a future stream of payments (either income or expenditures). The present

value of a future stream of payments may be thought of as the lump-sum amount that, if invested today, together with interest earnings would be just enough to meet each of the payments as they fell due. At the time of the last payment, the invested fund would be exactly zero. For example, a home mortgage of $100,000 represents the present value at 8 percent interest of future monthly payments of $714.40 for the next 30 years. Present values are widely used in calculations involving financial transactions over long periods of time to account for the time value of money (interest) and the changing value of the dollar (inflation).

Primary insurance amount—PIA. The monthly amount payable to a retired worker who begins to receive benefits at normal retirement age or (generally) to a disabled worker. This amount, which is related to the worker's average monthly wage or average indexed monthly earnings, is also the amount used as a base for computing all types of benefits payable on the basis of one individual's earnings record.

Primary insurance amount formula. The mathematical formula relating the PIA to the AIME for workers who attain age 62, become disabled, or die after 1978. The PIA is equal to the sum of 90 percent of AIME up to the first bend point, plus 32 percent of AIME above the first bend point up to the second bend point, plus 15 percent of AIME in excess of the second bend point. Automatic benefit increases are applied beginning with the year of eligibility. See table II.E3.

Quarters of coverage. Basic unit of measurement for determining insured status. In 1994, a worker receives one quarter of coverage (up to a total of four) for each $620 of annual covered earnings. The amount of earnings required for a quarter of coverage is subject to annual automatic increases in proportion to increases in average earnings. For amounts applicable for years after 1978, see table II.E3.

Railroad retirement. A Federal insurance program, somewhat 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.

Reallocation of tax rates. An increase in the tax rate payable to either the OASI or DI Trust Fund, with a corresponding reduction in the rate for the other fund, so that the total OASDI tax rate is not changed.

Real-wage differential. The difference between the percentage increases in (1) the average annual wage in covered employment and (2) the average annual Consumer Price Index. See table II.D1.

Recession. A period of adverse economic conditions; in particular, two or more successive calendar quarters of negative growth in either Gross Domestic Product (GDP), or Gross National Product (GNP).

Retired worker benefit. A monthly benefit payable to a fully insured retired worker aged 62 or older or to a person entitled under

the transitionally insured status provision in the law. Retired-worker benefit data do not include special age-72 benefits.

Retirement age. The age at which an individual establishes entitlement to retirement benefits. See also, "Normal retirement age."

Retirement earnings test. See "Earnings test."

Retirement test. See "Earnings test."

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 Social Security taxes on the net earnings of most self-employed persons.

Short range. The next 10 years. Short-range actuarial estimates are prepared for this period because of the short-range test of financial adequacy. The Social Security Act requires estimates for 5 years; estimates are prepared for an additional 5 years to help clarify trends which are only starting to develop in the mandated first 5-year period.

Social Security Act. Provisions of the law governing most operations of the Social Security program. Original Social Security Act is Public Law 74-271, enacted August 14, 1935. With subsequent amendments, the Social Security Act consists of 20 titles, of which four have been repealed. The Old-Age, Survivors, and Disability Insurance program is authorized by Title II of the Social Security Act.

Special public-debt obligation. Securities of the United States Government issued exclusively to the OASI, DI, HI, and SMI Trust Funds and other Federal trust funds. Section 201(d) of the Social Security Act provides that the public-debt obligations issued for purchase by the OASI and DI Trust Funds 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 each 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 value at any time and carry interest rates determined by law (see "Interest rate"). See also tables II.C2 and II.C4 for a listing of the obligations held by the OASI and DI Trust Funds, respectively.

Stabilizer provision. Section 215(i)(1)(C) of the Act, which provides that if the combined assets of the OASI and DI Trust Funds, as a percentage of estimated annual expenditures, fall below a specified level, automatic benefit increases will be limited to the lower of the increases in wages or prices. The specified level is 20 percent for benefit increases in 1989 and later.

Summarized balance. The difference between the summarized cost rate and the summarized income rate, expressed as a percentage of taxable payroll.

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. This ratio can be used as a measure of the relative level of expenditures during the period in question. For purposes of evaluating the financial adequacy of the program, the summarized

cost rate is adjusted to include the cost of reaching and maintaining a "target" trust fund level. Because a trust fund level of about 1 year's expenditures is considered to be an adequate reserve for unforeseen contingencies, the targeted trust fund ratio used in determining summarized cost rates is 100 percent of annual expenditures. Accordingly, the adjusted summarized cost rate is equal to the ratio of (a) the sum of the present value of the outgo during the period plus the present value of the targeted ending trust fund level, to (b) the present value of the taxable payroll during the projection period.

Summarized income rate. The ratio of the present value of tax income to the present value of taxable payroll for the years in a given period. This ratio can be used as a measure of the relative level of income during the period in question. For purposes of evaluating the financial adequacy of the program, the summarized income rate is adjusted to include assets on hand at the beginning of the period. Accordingly, the adjusted summarized income rate equals the ratio of (a) the sum of the trust fund balance at the beginning of the period plus the present value of the total income from taxes during the period, to (b) the present value of the taxable payroll for the years in the period.

Supplemental Security Income—SSI. A Federally administered program (often with State supplementation) of cash assistance for needy aged, blind, or disabled persons. SSI is funded through the general fund of the Treasury and administered by the Social Security Administration.

Supplementary Medical Insurance (SMI) Trust Fund. See "Trust fund."

Survivor benefit. Benefit payable to a survivor of a deceased worker.

Taxable earnings. Wages and/or self-employment income, in employment covered by the OASDI and/or HI programs, that is under the applicable annual maximum taxable limit. For 1994 and later, no maximum taxable limit applies to the HI program.

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 taxable and creditable maximum amount for a calendar or other taxable year, less any taxable wages in the same taxable year.

Taxable wages. See "Taxable earnings."

Taxation of benefits. During 1984-93, up to one-half of an individual's or a couple's OASDI benefits was potentially subject to Federal income taxation under certain circumstances. The revenue derived from this provision was allocated to the OASI and DI Trust Funds on the basis of the income taxes paid on the benefits from each fund. Beginning in 1994, the maximum portion of OASDI ben-

efits potentially subject to taxation was increased to 85 percent. The additional revenue derived from taxation of benefits in excess of one-half, up to 85 percent, is allocated to the HI Trust Fund.

Taxes. See "Contributions."

Termination. Cessation of payment of a specific type of benefit because the beneficiary is no longer entitled to receive it. For example, benefits might terminate as a result of the death of the beneficiary, the recovery of a disabled beneficiary, or the attainment of age 18 by a child beneficiary. In some cases, the individual may become immediately entitled to another type of benefit (such as the conversion of a disabled worker beneficiary at normal retirement age to a retired worker beneficiary).

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. 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 valuation 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 0 percent for the 10-year period, grading uniformly to 5 percent for the full 75-year period. 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. The test is applied to OASI and DI separately, as well as combined, based on the intermediate (alternative II) set of assumptions.

Test of Short-Range Financial Adequacy. The conditions required to meet this test are as follows:

- 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;
- 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 remainder of the 10-year period.

These conditions apply to each trust fund separately, as well as to the combined funds, and are evaluated based on the intermediate (alternative II) set of assumptions.

Total fertility rate. The average number of children who would be born to a woman in her lifetime if she were to experience the birth rates by age observed in, or assumed for, a specified year, and if she were to survive the entire child-bearing period.

Trust fund. Separate accounts in the United States Treasury in which are deposited the taxes received under the Federal Insurance Contributions Act, the Self-Employment Contributions Act, contributions resulting from coverage of State and local government em-

ployees; any sums received under the financial interchange with the railroad retirement account; voluntary hospital and medical insurance premiums; and transfers of Federal general revenues. Funds not withdrawn for current monthly or service benefits, the financial interchange, and administrative expenses are invested in interest-bearing Federal securities, as required by law; the interest earned is also deposited in the trust funds.

- **Old-Age and Survivors Insurance (OASI).** The trust fund used for paying monthly benefits to retired-worker (old-age) beneficiaries and their spouses and children and to survivors of deceased insured workers.
- **Disability Insurance (DI).** The trust fund used for paying monthly benefits to disabled worker beneficiaries and their spouses and children and for providing rehabilitation services to the disabled.
- **Hospital Insurance (HI).** The trust fund used for paying part of the costs of inpatient hospital services and related care for aged and disabled individuals who meet the eligibility requirements.
- **Supplementary Medical Insurance (SMI).** The trust fund used for paying part of the costs of physician's services, outpatient hospital services, and other related medical and health services for voluntarily enrolled aged and disabled individuals.

Trust fund ratio. A measure of the adequacy of the trust fund level. Defined as the assets at the beginning of the year, including advance tax transfers (if any), expressed as a percentage of the outgo during the year. The trust fund ratio represents the proportion of a year's outgo which could be paid with the funds available at the beginning of the year.

Unnegotiated check. A check which has not been cashed 6 months after the end of the month in which the check was issued. When a check has been outstanding for a year (i) the check is administratively cancelled by the Department of the Treasury and (ii) the issuing trust fund is reimbursed separately for the amount of the check and interest for the period the check was outstanding. The appropriate trust fund also receives an interest adjustment for the time the check was outstanding if it is cashed 6-12 months after the month of issue. If a check is presented for payment after it is administratively cancelled, a replacement check is issued.

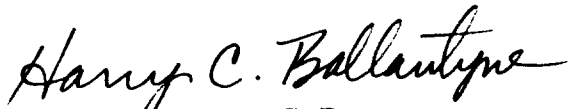
Valuation period. A period of years which is considered as a unit for purposes of calculating the financial status of a trust fund.

Vocational rehabilitation. Services provided to disabled persons to help enable them to return to gainful employment. Reimbursement from the trust funds for the costs of such services is made only in those cases where the services contributed to the successful rehabilitation of the beneficiaries.

Year of exhaustion. The year in which a trust fund would become unable to pay benefits when due because the assets of the fund were exhausted.

H. STATEMENT OF ACTUARIAL OPINION

It is my opinion that (1) the techniques and methodology used herein to evaluate the financial and actuarial status of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds are generally accepted within the actuarial profession; and (2) the assumptions used and the resulting actuarial estimates are, in the aggregate, reasonable for the purpose of evaluating the financial and actuarial status of the trust funds, taking into consideration the experience and expectations of the program.



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