

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 2002. 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 These provisions were originally enacted in 1972 and first became effective with the benefit increase effective for June 1975.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 3.0 percent, effective for December 1992, was announced in October 1992, 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.E.1 shows the average wage index as determined for each year 1951 through 1991.

TABLE II.E.1.—AVERAGE WAGE INDEX, CALENDAR YEARS 1951-91

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		
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 and the Hospital Insurance program’s contribution 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 and the Hospital Insurance contribution base for 1993 were determined to be \$57,600 and \$135,000, respectively.

Table II.E.2 shows historical automatic cost-of-living benefit increases for the years 1975-92 and assumed increases through 2002. The table also shows historical year-to-year percentage increases in the average wage index for 1975-91 and assumed increases through 2002. As noted above, the OASDI contribution and benefit base and the Hospital Insurance contribution base are adjusted on the basis of such wage increases. The historical and projected amounts for these two bases are also shown in table II.E.2. The projections are shown under the three alternative sets of economic assumptions described in the previous section.

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TABLE II.E.2.—COST-OF-LIVING BENEFIT INCREASES, AVERAGE WAGE INDEX INCREASES, OASDI CONTRIBUTION AND BENEFIT BASES, AND HOSPITAL INSURANCE CONTRIBUTION BASES, 1975-2002

Calendar year	OASDI benefit increases ¹ (percent)	Increase in average wage index ² (percent)	OASDI contribution and benefit base ³	Hospital Insurance contribution base ⁴
Historical data:				
1975	8.0	7.5	\$14,100	\$14,100
1976	6.4	6.9	15,300	15,300
1977	5.9	6.0	16,500	16,500
1978	6.5	7.9	17,700	17,700
1979	9.9	8.7	⁵ 22,900	⁵ 22,900
1980	14.3	9.0	⁵ 25,900	⁵ 25,900
1981	11.2	10.1	⁵ 29,700	⁵ 29,700
1982	7.4	5.5	32,400	32,400
1983	3.5	4.9	35,700	35,700
1984	3.5	5.9	37,800	37,800
1985	3.1	4.3	39,600	39,600
1986	1.3	3.0	42,000	42,000
1987	4.2	6.4	43,800	43,800
1988	4.0	4.9	45,000	45,000
1989	4.7	4.0	48,000	48,000
1990	5.4	4.6	51,300	51,300
1991	3.7	3.7	53,400	125,000
1992	3.0	⁶ 3.8	55,500	130,200
Alternative I:				
1993	2.7	4.1	⁷ 57,600	⁷ 135,000
1994	2.8	4.6	60,000	140,400
1995	3.0	5.0	62,400	146,100
1996	3.0	4.8	65,400	152,700
1997	3.0	4.8	68,700	160,200
1998	3.0	4.7	72,000	167,700
1999	3.0	4.6	75,300	175,800
2000	3.0	4.7	78,900	183,900
2001	3.0	4.8	82,500	192,300
2002	3.0	4.9	86,400	201,300
Alternative II:				
1993	3.0	3.5	⁷ 57,600	⁷ 135,000
1994	3.1	4.3	59,700	140,100
1995	3.3	4.4	61,800	145,200
1996	3.4	4.2	64,500	151,500
1997	3.5	4.4	67,500	158,100
1998	3.7	4.5	70,200	164,700
1999	3.9	4.8	73,200	171,900
2000	4.0	5.0	76,500	179,700
2001	4.0	5.0	80,100	188,400
2002	4.0	5.2	84,000	197,700

TABLE II.E.2.—COST-OF-LIVING BENEFIT INCREASES, AVERAGE WAGE INDEX INCREASES, OASDI CONTRIBUTION AND BENEFIT BASES, AND HOSPITAL INSURANCE CONTRIBUTION BASES, 1975-2002 (Cont.)

Calendar year	OASDI benefit increases ¹ (percent)	Increase in average wage index ² (percent)	OASDI contribution and benefit base ³	Hospital Insurance contribution base ⁴
Alternative III:				
1993	3.9	3.6	⁷ \$57,600	⁷ \$135,000
1994	3.8	3.9	59,400	139,500
1995	5.7	5.0	61,500	144,600
1996	6.4	6.9	63,900	150,300
1997	4.7	3.7	67,200	157,800
1998	5.0	4.9	71,700	168,600
1999	5.0	5.5	74,400	174,900
2000	5.0	5.4	78,000	183,300
2001	5.0	5.5	82,200	193,500
2002	5.0	5.6	86,700	204,000

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.B.1 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.

⁴ Prior to 1991, the Hospital Insurance (HI) contribution base was the same as the OASDI contribution and benefit base. The separate HI base for 1991 was specified by Public Law 101-508.

⁵ Amount specified by the Social Security Amendments of 1977.

⁶ Based on an estimated average wage index of \$22,630.79 for 1992.

⁷ Actual amount, as determined and announced in October 1992.

Other wage-indexed amounts are shown in table II.E.3. The table provides historical values from 1975, when the retirement earnings test exempt amounts were first indexed, through 1993, and also shows projected amounts under the alternative II assumptions through the year 2002. These other wage-indexed program amounts are described in the following paragraphs.

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.

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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 1993 is:

90 percent of the first \$401 of AIME, plus
32 percent of AIME in excess of \$401
but not in excess of \$2,420, plus
15 percent of AIME in excess of \$2,420.

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 1993:

150 percent of the first \$513 of PIA, plus
272 percent of the PIA in excess of \$513
but not in excess of \$740, plus
134 percent of the PIA in excess of \$740
but not in excess of \$966, plus
175 percent of the PIA in excess of \$966.

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

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.

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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.¹ In addition, it is used for certain purposes under the Railroad Retirement program and the Employee Retirement Income Security Act of 1974.

¹ 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.

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TABLE II.E.3.—SELECTED OASDI PROGRAM AMOUNTS DETERMINED UNDER THE AUTOMATIC-ADJUSTMENT PROVISIONS, CALENDAR YEARS 1975-93, AND PROJECTED FUTURE AMOUNTS, CALENDAR YEARS 1994-2002, ON THE BASIS OF THE INTERMEDIATE SET OF ASSUMPTIONS

Calendar year	Retirement earnings test exempt amount		AIME "bend points" in PIA formula		PIA "bend points" in maximum-family-benefit formula			Earnings required for a quarter of coverage ²	"Old law" contribution and benefit base ³
	Under age 65	Ages 65 and over ¹	First	Second	First	Second	Third		
Historical data:									
1975...	\$2,520	\$2,520	(4) *	(4)	(4)	(4)	(4)	(5)	(4)
1976...	2,760	2,760	(4)	(4)	(4)	(4)	(4)	(5)	(4)
1977...	3,000	3,000	(4)	(4)	(4)	(4)	(4)	(5)	(4)
1978...	3,240	⁶ 4,000	(4)	(4)	(4)	(4)	(4)	⁷ \$250	(4)
1979...	3,480	⁶ 4,500	⁷ \$180	⁷ \$1,085	⁷ \$230	⁷ \$332	⁷ \$433	260	\$18,900
1980...	3,720	⁶ 5,000	194	1,171	248	358	467	290	20,400
1981...	4,080	⁶ 5,500	211	1,274	270	390	508	310	22,200
1982...	4,440	⁶ 6,000	230	1,388	294	425	554	340	24,300
1983...	4,920	6,600	254	1,528	324	468	610	370	26,700
1984...	5,160	6,960	267	1,612	342	493	643	390	28,200
1985...	5,400	7,320	280	1,691	358	517	675	410	29,700
1986...	5,760	7,800	297	1,790	379	548	714	440	31,500
1987...	6,000	8,160	310	1,866	396	571	745	460	32,700
1988...	6,120	8,400	319	1,922	407	588	767	470	33,600
1989...	6,480	8,880	339	2,044	433	626	816	500	35,700
1990...	6,840	9,360	356	2,145	455	656	856	520	38,100
1991...	7,080	9,720	370	2,230	473	682	890	540	39,600
1992...	7,440	10,200	387	2,333	495	714	931	570	41,400
1993...	7,680	10,560	401	2,420	513	740	966	590	42,900
Estimates:									
1994...	7,920	10,920	417	2,511	532	768	1,002	610	44,400
1995...	8,160	11,280	431	2,600	551	795	1,037	630	45,900
1996...	8,520	11,760	450	2,712	575	830	1,082	660	48,000
1997...	8,880	12,240	470	2,832	600	867	1,130	690	50,100
1998...	9,240	12,720	490	2,951	626	903	1,178	720	52,200
1999...	9,600	13,320	511	3,080	653	943	1,229	750	54,600
2000...	10,080	13,920	534	3,219	682	985	1,285	790	57,000
2001...	10,560	14,640	560	3,374	715	1,033	1,347	820	59,700
2002...	11,040	15,360	588	3,542	751	1,084	1,413	860	62,700

¹In 1955-82, retirement earnings test did not apply at ages 72 and over; beginning in 1983, it does not apply at ages 70 and over.

²See Appendix F for a description of quarter-of-coverage requirements prior to 1978.

³Contribution 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.

⁴No provision in law for this amount in this year.

⁵Amount was not subject to automatic-adjustment provisions in this year.

⁶Amount specified by Social Security Amendments of 1977.

⁷Amount 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, 1992, is presented in section II.C of this report. Estimates of the operations and status of the trust funds during fiscal years 1993-2002 are presented in this section. In addition, similar estimates for calendar years 1993-2002 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-

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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

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.

employee-employer contribution rate (or the payroll-tax rate) scheduled in the law and the rate of income from taxation of benefits (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 un-

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foreseen 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, summarized 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, 1992, to December 31, 2002

This subsection presents estimates of the operations and financial status of the OASI and DI Trust Funds during the period October 1, 1992, to December 31, 2002, 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 within the next 2-4 years in the absence of corrective legislation. Under the alternative II assumptions, DI assets would decline rapidly and would become insufficient to permit the timely payment of benefits by the end of 1995. Based on the more pessimistic alternative III assumptions, DI assets would be depleted early in 1995. Even under the more favorable conditions assumed for alternative I, DI assets would be depleted in late 1997.

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 failure of the DI Trust Fund to meet the requirements of the test and, in particular, the projected depletion of the fund, are clear indications that the financial position of the DI program must be strengthened in the very near future.

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 1993-2002 are shown in table II.F.1 based on each of the three alternative sets of assumptions. Actual operations for calendar year 1992 are also shown in the table.

The increases in estimated income shown in table II.F.1 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 2002 (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 133 million during calendar year 1992 to about 152 million, 148 million, and 144 million, respectively, in 2002. The total annual amount of taxable earnings is projected to increase from \$2,530 billion in 1992 to \$4,642 billion, \$4,385 billion, and \$4,393 billion, in 2002, on the basis of alternatives I, II, and III, respectively. (In 1992 dollars—taking account of assumed increases in the CPI from 1992 to 2002 under each alternative—the estimated amounts of taxable earnings in 2002 are \$3,470 billion, \$3,082 billion, and \$2,710 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 1993-2002 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 2002, interest income to the OASI Trust Fund is projected to range from 11 to 15 percent of total trust fund income (depending on alternative), as compared to 8 percent in 1992.

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**TABLE II.F.1.—ESTIMATED OPERATIONS OF THE OASI TRUST FUND
BY ALTERNATIVE, CALENDAR YEARS 1992-2002**

[Amounts in billions]

Calendar year	Income	Expenditures	Net increase in fund	Fund at end of year	Trust fund	
					Amount ¹	Ratio ²
1992 ³	\$311.2	\$259.9	\$51.3	\$319.1	\$267.8	103
Alternative I:						
1993	326.4	273.4	53.0	372.2	319.2	117
1994	357.5	285.6	71.9	444.1	372.2	130
1995	381.4	298.1	83.3	527.4	444.1	149
1996	410.9	311.6	99.2	626.7	527.4	169
1997	438.7	325.7	113.0	739.6	626.7	192
1998	469.9	340.4	129.5	869.1	739.6	217
1999	502.5	355.9	146.6	1,015.7	869.1	244
2000	528.6	372.3	156.4	1,172.1	1,015.7	273
2001	565.1	389.3	175.8	1,347.9	1,172.1	301
2002	604.1	407.2	196.9	1,544.8	1,347.9	331
Alternative II:						
1993	323.6	273.6	49.9	369.1	319.2	117
1994	351.6	286.8	64.7	433.8	369.1	129
1995	371.6	300.6	71.0	504.9	433.8	144
1996	395.4	315.5	79.9	584.8	504.9	160
1997	418.0	331.4	86.5	671.3	584.8	176
1998	443.6	348.3	95.2	766.5	671.3	193
1999	471.7	366.8	104.9	871.4	766.5	209
2000	494.2	387.2	107.0	978.3	871.4	225
2001	526.6	409.1	117.5	1,095.8	978.3	239
2002	561.2	432.0	129.2	1,225.0	1,095.8	254
Alternative III:						
1993	322.4	274.0	48.5	367.6	319.2	116
1994	346.1	289.9	56.2	423.9	367.6	127
1995	364.6	306.2	58.4	482.2	423.9	138
1996	393.9	329.1	64.8	547.0	482.2	147
1997	414.4	355.7	58.7	605.7	547.0	154
1998	435.2	378.3	56.9	662.6	605.7	160
1999	464.3	403.2	61.1	723.7	662.6	164
2000	488.5	429.8	58.7	782.4	723.7	168
2001	519.9	457.8	62.1	844.5	782.4	171
2002	551.8	487.6	64.2	908.7	844.5	173

¹Represents assets at beginning of year.

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

³Figures for 1992 represent actual experience.

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

Rising expenditures during 1993-2002 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.F.1 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 1992 were equal to 103 percent of the fund's expenditures in 1992. 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 1992, income exceeded disbursements by \$51.3 billion. As a result, the trust fund ratio increased to about 117 percent at the beginning of 1993.

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 117 percent at the beginning of 1993 to the range of 173-331 percent at the beginning of the year 2002 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 1993 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

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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 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 2002. Consequently, the OASI Trust Fund satisfies the test of short-range financial adequacy by a wide margin. The estimates in table II.F.1 also indicate that the short-range test would be satisfied even under the adverse conditions assumed in alternative III.

In interpreting the trust fund ratios in table II.F.1, 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.F.1 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 1993-2002 under the three sets of assumptions are shown in table II.F.2, together with figures on actual experience in 1992. 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 during 1986-89. During 1990-92 the incidence rate resumed increasing, with unusually rapid increases (on a relative basis) of 8, 12, and 16 percent in those 3 years.

The rapid increases in disability benefit applications and awards during 1990-92 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

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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.

During 1992, in addition, special administrative procedures were implemented to process probable disability awards on an expedited basis. These procedures were designed to minimize the effects of the extremely heavy workloads imposed by the large increase in the number of applications for disability benefits. The administrative initiative resulted in a one-time acceleration of disability benefit awards, thereby contributing substantially to the unusually large increase in the incidence rate in 1992. 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 incidence rates in recent years.

Although an increasing trend in disability incidence rates has been projected in past annual reports, the actual increases since 1982 have frequently been larger than expected. In particular, the experience during 1990-92 exceeded prior assumptions by a wide margin. Due to the extreme 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 will be necessarily uncertain. In this report, under alternative II, disability incidence rates are assumed to increase slightly for a few years before beginning to decline toward their historical average. For alternative I, incidence rates are assumed to decline from the level experienced in 1992 to a level slightly below the historical average. Under alternative III, assumed incidence rates increase to near the highest levels experienced during the 1970s before beginning to decline.

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; terminations due to death are assumed to remain at about their current level; terminations due to recovery are assumed to increase somewhat from their current level. The aggregate termination rates projected under all three alternatives are projected to continue declining gradually during 1992-99, before leveling off at the end of the short-range projection period.

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**TABLE II.F.2.—ESTIMATED OPERATIONS OF THE DI TRUST FUND
BY ALTERNATIVE, CALENDAR YEARS 1992-2002**

[Amounts in billions]

Calendar year	Income	Expen- ditures	Net increase in fund	Fund at end of year	Trust fund	
					Amount ¹	Ratio ²
1992 ³	\$31.4	\$32.0	-\$0.6	\$12.3	\$12.9	40
Alternative I:						
1993	32.6	34.7	-2.2	10.2	12.3	35
1994	35.4	37.3	-1.9	8.2	10.2	27
1995	37.3	40.1	-2.7	5.5	8.2	21
1996	39.6	43.0	-3.3	2.2	5.5	13
1997 ⁴	41.8	46.1	-4.3	-2.1	55.9	13
1998 ⁴	44.1	49.2	-5.1	-7.2	(6)	(6)
1999 ⁴	46.4	52.5	-6.1	-13.4	(6)	(6)
2000 ⁴	57.7	55.9	1.7	-11.6	(6)	(6)
2001 ⁴	61.8	59.6	2.2	-9.5	(6)	(6)
2002 ⁴	65.5	63.7	1.8	-7.7	(6)	(6)
Alternative II:						
1993	32.3	35.4	-3.2	9.2	12.3	35
1994	34.6	38.9	-4.3	4.9	9.2	24
1995 ⁴	36.0	42.6	-6.6	-1.7	4.9	11
1996 ⁴	37.6	46.5	-8.9	-10.6	(6)	(6)
1997 ⁴	38.9	50.8	-11.9	-22.5	(6)	(6)
1998 ⁴	40.3	55.3	-14.9	-37.4	(6)	(6)
1999 ⁴	41.7	60.0	-18.3	-55.7	(6)	(6)
2000 ⁴	51.4	65.1	-13.7	-69.4	(6)	(6)
2001 ⁴	54.2	70.5	-16.2	-85.6	(6)	(6)
2002 ⁴	56.5	76.3	-19.7	-105.4	(6)	(6)
Alternative III:						
1993	32.1	36.0	-3.9	8.4	12.3	34
1994	33.9	40.5	-6.6	1.8	8.4	21
1995 ⁴	34.8	45.4	-10.6	-8.8	54.9	11
1996 ⁴	36.6	51.5	-15.0	-23.7	(6)	(6)
1997 ⁴	36.8	58.7	-21.9	-45.7	(6)	(6)
1998 ⁴	36.6	65.5	-29.0	-74.6	(6)	(6)
1999 ⁴	37.0	73.1	-36.0	-110.6	(6)	(6)
2000 ⁴	45.8	81.1	-35.2	-145.9	(6)	(6)
2001 ⁴	47.4	89.4	-42.0	-187.9	(6)	(6)
2002 ⁴	48.1	98.1	-50.1	-237.9	(6)	(6)

¹Except where noted, represents assets at beginning of year.

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

³Figures for 1992 represent actual experience.

⁴Under alternative I, the DI Trust Fund would be depleted in 1997, when assets would become insufficient to pay benefits on time. Under alternatives II and III, depletion would occur in 1995. Thus, figures shown under each alternative for year of depletion and later are theoretical. See text for details.

⁵Represents assets at beginning of year, plus advance tax transfers for January.

⁶Fund 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 in-

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 the last several annual reports. Thus, the greater number of awards due to AIDS does not account for the unexpectedly large increases in awards experienced during 1990-92.

creased greatly as a result of AIDS. Although many aspects of AIDS are well understood, there remains considerable uncertainty regarding 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 set of assumptions, benefit awards to persons with AIDS are projected to continue to increase through 1998, before beginning to decline. Under alternative I the number of new awards begins to decline in the near future, while the number projected under alternative III increases at a rapid rate throughout the short-range period.

At the beginning of calendar year 1992, the assets of the DI Trust Fund represented 40 percent of annual expenditures. During 1992, DI expenditures exceeded DI income by \$0.6 billion, with the result that the trust fund ratio for the beginning of 1993 decreased to about 35 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 11 percent of annual expenditures—only slightly more than needed just 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 2 additional months. Before the end of 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.F.2, 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

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would operate if tax rates were reallocated or if the two funds were merged. It is important to note, however, that there is no provision in the Social Security Act that authorizes borrowing on behalf of a deficient trust fund.

Under the more favorable economic and demographic conditions assumed in alternative I, expenditures from the DI Trust Fund would exceed income through the year 1999.¹ Based on these assumptions, the assets of the DI Trust Fund would decrease steadily and be exhausted late in 1997. Under the less favorable conditions assumed for alternative III, DI assets would decline rapidly in the absence of corrective legislation and would become insufficient to pay benefits when due early in 1995.

Because DI assets fail to reach the level of 1 year's expenditures under the alternative II 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 projected 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 1993-2002 on the basis of the three alternatives, are shown in table II.F.3, together with figures on actual experience in 1992. These amounts are generally the sums of the corresponding figures shown in tables II.F.1 and II.F.2. An exception is made reflecting the depletion of the DI Trust Fund. Under each alternative, the trust fund amount shown for OASI and DI combined excludes the DI advance tax transfers that would be reinstated under present law. This adjustment is made to facilitate analysis of how the program would operate if the two trust funds were combined into one, or if tax rates were reallocated between the funds.

¹ As noted in section II.B, the tax rate allocated to the DI Trust Fund is scheduled under present law to increase from 0.60 percent for employees and employers, each, to 0.71 percent starting in the year 2000.