V. SUMMARY OF THE OPERATIONS OF THE OLD-AGE AND SURVIVORS INSURANCE AND DISABILITY INSURANCE TRUST FUNDS, FISCAL YEAR 1990

A. 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 1990, and of the assets of the fund at the beginning and end of the fiscal year, ispresented in table 2.

TABLE 2.—STATEMENT OF OPERATIONS OF THE OASI TRUST FUND DURING FISCAL YEAR 1990

[In thousands]

Total assets, September 30, 1989		$148,318,904
Receipts:		
Contributions:		
Appropriations:		
Employment taxes	$260,408,553	
Tax credits	1,437,252	
Total appropriations	261,845,804	
Payment from general fund of the Treasury representing employee-employer contributions on deemed wage credits for military service	450,986	
Gross contributions	262,296,790	
Less payment to the general fund of the Treasury for contributions subject to refund	790,790	
Net contributions		261,506,000
Income from taxation of benefit payments:		
Withheld from benefit payments to non-resident aliens	75,658	
All other, not subject to withholding	2,848,000	
Total income from taxation of benefits		2,923,658
Reimbursement from general fund of the Treasury for costs of payments to uninsured persons who attained age 72 before 1968		33,968
Investment income and interest adjustments:		
Interest on investments	15,125,558	
Interest on transfers between the trust fund and the general fund account for the Supplemental Security Income program due to adjustment in allocation of administrative expenses	11	
Gross investment income and interest adjustments	15,125,569	
Less interest on interfund transfers due to adjustment in allocation of administrative expenses	169	
Less interest on general fund advance tax transfers	982,358	
Net investment income and interest adjustments		14,143,042
Gifts		145
Total receipts		278,606,814
Disbursements:		
Benefit payments:		
Gross benefit payments	219,736,708	
Less collected overpayments	779,786	
Less reimbursement for unnegotiated checks	9,169	
Net benefit payments		218,947,753
Transfer to the Railroad Retirement "Social Security Equivalent Benefit Account"		2,969,258
Administrative expenses:		
Department of Health and Human Services	1,480,767	
Department of the Treasury	84,015	
Gross administrative expenses	1,564,782	
Less reimbursements from general fund of the Treasury for costs of furnishing information on deferred vested pension benefits	1,000	
Less receipts from sales of supplies, materials, etc.	38	
Net administrative expenses		1,563,744
Total disbursements		223,480,755
Net increase in assets		55,126,059
Total assets, September 30, 1990		203,444,963

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

The total assets of the OASI Trust Fund amounted to $148,319 million on September 30, 1989. During fiscal year 1990, total receipts amounted to $278,607 million, and total disbursements were $223,481 million. The assets of the OASI Trust Fund thus increased by $55,126 million during the year, to a total of $203,445 million on September 30, 1990.

Included in total receipts during fiscal year 1990 were $261,846 million representing contributions appropriated to the fund (including transfers of $1,437 million from the general fund of the Treasury to offset the tax credits allowed against contributions due on earnings of self-employed persons). Another $451 million was received from the general fund of the Treasury representing payment for the contributions that would have been paid on estimated deemed wage credits for military service in 1990 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, $791 million 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 thus amounted to $261,506 million, an increase of 5.8 percent over the amount in the preceding fiscal year. This level of growth in contribution income resulted primarily from the effects of (1) increased covered employment and earnings, (2) the increase in the OASI tax rate that became effective on January 1, 1990, and (3) the increases in the contribution and benefit base that became effective on January 1 of each year 1989 and 1990. (Table 1 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 $2,924 million, of which 97 percent represented amounts credited to the trust fund in advance, on an estimated basis, together with an adjustment to 1984-86 transfers to account for actual experience. The remaining 3 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 $34 million was transferred to the OASI Trust Fund in fiscal year 1990, as required by section 228 of the Social Security Act. The reimbursement reflected the costs of payments made in fiscal year 1988.

Net receipts totaling $14,143 million consisted of (1) interest earned on the investments of the trust fund; plus (2) 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; less (3) interest arising from the revised allocation of administrative expenses among the trust funds; less (4) reimbursement to the general fund for interest costs resulting from the advance transfer of contributions.

The remaining $145,335 of receipts consisted of gifts received under the provisions authorizing the deposit of money gifts or bequests in the trust funds.

Of the $223,481 million in total disbursements, $218,948 million was for net benefit payments, excluding collected overpayments of $780 million and the reimbursement of $9 million for unnegotiated benefit checks. The amount of net benefit payments in fiscal year 1990 represents an increase of 7.0 percent over the corresponding amount in fiscal year 1989. This increase was due primarily to (1) the automatic cost-of-living benefit increases of 4.0 percent and 4.7 percent which became effective for December 1988 and December 1989 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.

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. The objective of the financial interchanges is to place the trust funds in the same financial position in which they would have been if railroad employment had always been covered under Social Security. Accordingly, the Railroad Retirement Board and the Secretary of Health and Human Services determined that a transfer of $2,798,800,000 to the Social Security Equivalent Benefit Account (SSEBA) from the OASI Trust Fund would put the trust fund in such a financial position as of September 30, 1989. A total amount of $2,969,258,000 was transferred to the SSEBA in June 1990, including interest to the date of transfer amounting to $170,458,000.

The remaining $1,564 million 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 1990 amounted to $1,000,000.

Net administrative expenses charged to the OASI and DI Trust Funds in fiscal year 1990 totaled $2,280 million. (The operations of the DI Trust Fund are presented in detail in the next subsection.) This amount represented 0.8 percent of contribution income and 0.9 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 3 foreach of the last 5 years.

TABLE 3.—NET ADMINISTRATIVE EXPENSES AS A PERCENTAGE OF CONTRIBUTION INCOME AND OF BENEFIT PAYMENTS, BY TRUST FUND, FISCAL YEARS 1986-90

Fiscal year	OASI Trust Fund: Contribution income	OASI Trust Fund: Benefit payments	DI Trust Fund: Contribution income	DI Trust Fund: Benefit payments	Total: Contribution income	Total: Benefit payments
1986	0.9	0.9	3.3	3.1	1.1	1.1
1987	.8	.8	3.8	3.6	1.0	1.1
1988	.8	.9	3.7	3.8	1.0	1.2
1989	.7	.8	3.2	3.3	.9	1.1
1990	.6	.7	2.6	2.9	.8	.9

Table 4 compares past estimates of contributions and benefit payments for fiscal year 1990, as shown in the 1986-90 Annual Reports, with the corresponding actual amounts in 1990. The estimates shown are the ones based on the alternative II-B set of assumptions from each report.

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 4 indicate that prior estimates of OASI and DI tax contributions for 1990 were reasonably close to the actual amounts. Similarly, estimates of OASI benefit payments were generally close. The actual amount of DI benefit payments in 1990, however, was significantly above prior estimates, due to faster-than-expected growth in the number of disabled workers.

TABLE 4.—COMPARISON OF ACTUAL AND ESTIMATED OPERATIONS OF THE OASI AND DI TRUST FUNDS, FISCAL YEAR 1990

[Amounts in millions]

	Net contributions[1]: Amount	Net contributions[1]: Variance from actual (percent)	Benefit payments[2]: Amount	Benefit payments[2]: Variance from actual (percent)
OASI Trust Fund				
Estimate in 1986 report	$262,708	0.5	$228,652	4.4
Estimate in 1987 report	256,948	−1.7	221,559	1.2
Estimate in 1988 report	256,569	−1.9	218,512	−.2
Estimate in 1989 report	264,792	1.3	219,267	.1
Estimate in 1990 report	263,104	.6	219,322	.2
Actual amount	261,506	—	218,948	—
DI Trust Fund				
Estimate in 1986 report	27,343	.2	23,463	−3.6
Estimate in 1987 report	26,758	−2.0	23,300	−4.2
Estimate in 1988 report	26,716	−2.1	23,744	−2.4
Estimate in 1989 report	27,598	1.1	24,005	−1.3
Estimate in 1990 report	27,453	.6	24,142	−.8
Actual amount	27,291	—	24,327	—

TABLE 4.—COMPARISON OF ACTUAL AND ESTIMATED OPERATIONS OF THE OASI AND DI TRUST FUNDS, FISCAL YEAR 1990 (Cont.)
[Amounts in millions]

	Net contributions[1]		Benefit payments[2]	
	Amount	Variance from actual (percent)	Amount	Variance from actual (percent)
OASI and DI Trust Funds, combined				
Estimate in 1986 report	$290,051	0.4	$252,114	3.6
Estimate in 1987 report	283,706	−1.8	244,859	.7
Estimate in 1988 report	283,285	−1.9	242,256	−.4
Estimate in 1989 report	292,390	1.2	243,272	([3])
Estimate in 1990 report	290,557	.6	243,464	.1
Actual amount	288,797	—	243,275	—

[1] "Actual" contributions for 1990 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 and −0.05 percent.

At the end of fiscal year 1990, about 39.7 million persons were receiving monthly benefits under the OASDI program. Of these persons, about 35.4 million and 4.2 million were receiving monthly benefits from the OASI Trust Fund and the DI Trust Fund, respectively. The estimated distribution of benefit payments (before reflecting the reimbursement for unnegotiated checks) in fiscal years 1989 and 1990, by type of beneficiary, is shown in table 5 for each trust fund separately.

TABLE 5.—ESTIMATED DISTRIBUTION OF BENEFIT PAYMENTS FROM THE OASI AND DI TRUST FUNDS, BY TYPE OF BENEFICIARY OR PAYMENT, FISCAL YEARS 1989 AND 1990
[Amounts in millions]

	Fiscal year 1989		Fiscal year 1990	
	Amount	Percentage of total	Amount	Percentage of total
Total OASDI benefit payments	$227,164	100.0	$243,257	100.0
OASI benefit payments	204,648	90.1	218,957	90.0
DI benefit payments	22,516	9.9	24,301	10.0
OASI benefit payments, total	204,648	100.0	218,957	100.0
Monthly benefits:				
Retired workers and auxiliaries	157,681	77.0	168,855	77.1
Retired workers	143,597	70.2	153,848	70.3
Wives and husbands	12,845	6.3	13,710	6.3
Children	1,239	.6	1,297	.6
Survivors of deceased workers	46,737	22.8	49,878	22.8
Aged widows and widowers	36,640	17.9	39,462	18.0
Disabled widows and widowers	455	.2	474	.2
Parents	41	([1])	39	([1])
Children	8,206	4.0	8,475	3.9
Widowed mothers and fathers caring for child beneficiaries	1,394	.7	1,427	.7
Uninsured persons generally aged 72 before 1968	23	([1])	17	([1])
Lump-sum death payments	207	.1	207	.1
DI benefit payments, total	22,516	100.0	24,301	100.0
Disabled workers	19,974	88.7	21,644	89.1
Wives and husbands	523	2.3	529	2.2
Children	2,019	9.0	2,128	8.8

[1] Less than 0.05 percent.

Note: Benefit payments shown above do not reflect the reimbursement for unnegotiated checks. Totals do not necessarily equal the sums of rounded components.

The assets of the OASI Trust Fund at the end of fiscal year 1990 totaled $203,445 million, consisting of $203,717 million in U.S. Government obligations and, as an offset, an extension of credit amounting to $272 million against securities to be redeemed within the following few days. Table 6 shows the total assets of the fund and their distribution at the end of each fiscal year 1989 and 1990.

TABLE 6.—ASSETS OF THE OASI TRUST FUND, BY TYPE, AT END OF FISCAL YEAR, 1989 AND 1990

	September 30, 1989	September 30, 1990
Obligations sold only to the trust funds (special issues):		
Certificates of indebtedness:		
8.375 percent, 1990	$7,931,379,000.00	—
8.875 percent, 1991	—	$17,247,802,000.00
Bonds:		
8.375 percent, 1991	313,295,000.00	—
8.375 percent, 1992-2000	2,819,655,000.00	2,819,655,000.00
8.375 percent, 2001	2,370,396,000.00	2,370,396,000.00
8.625 percent, 1990-91	2,603,462,000.00	—
8.625 percent, 1992-2001	13,017,310,000.00	13,017,310,000.00
8.625 percent, 2002	3,672,127,000.00	3,672,127,000.00
8.75 percent, 1990-91	6,968,064,000.00	—
8.75 percent, 1992-94	10,452,096,000.00	21,299,409,000.00
8.75 percent, 1995-2000	20,904,192,000.00	42,598,812,000.00
8.75 percent, 2001-03	10,452,099,000.00	21,299,409,000.00
8.75 percent, 2004	9,396,468,000.00	13,012,238,000.00
8.75 percent, 2005	—	13,012,238,000.00
9.25 percent, 1990	2,240,308,000.00	—
9.25 percent, 1991-2000	22,403,090,000.00	22,403,090,000.00
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, 1990	2,057,101,000.00	—
10.375 percent, 1991	1,865,345,000.00	1,865,345,000.00
10.375 percent, 1992-99	4,521,488,000.00	4,521,488,000.00
10.375 percent, 2000	2,057,101,000.00	2,057,101,000.00
10.75 percent, 1992-96	5,111,155,000.00	5,111,155,000.00
10.75 percent, 1997-98	2,044,460,000.00	2,044,460,000.00
13.75 percent, 1991	191,756,000.00	191,756,000.00
13.75 percent, 1992-96	2,348,420,000.00	2,348,420,000.00
13.75 percent, 1997-98	939,370,000.00	939,370,000.00
13.75 percent, 1999	1,491,915,000.00	1,491,915,000.00
Total investments	148,565,103,000.00	203,716,547,000.00
Undisbursed balances[1]	-246,198,668.48	-271,583,840.60
Total assets	148,318,904,331.52	203,444,963,159.40

[1] Negative figures represented extensions 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.

All securities 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 current 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 the certificates of indebtedness (and bonds, issued previously) 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.

Table 7 shows the investment transactions of the OASI and DI Trust Funds, separate and combined, in fiscal year 1990. All amounts shown in the table are at par value.

TABLE 7.—INVESTMENT TRANSACTIONS OF THE OASI AND DI TRUST FUNDS IN FISCAL YEAR 1990
[In thousands]

	OASI Trust Fund	DI Trust Fund	Total
Invested assets, September 30, 1989	$148,565,103	$8,428,340	$156,993,443
Acquisitions:			
Special Issues:			
Certificates of indebtedness	265,369,863	27,464,647	292,834,510
Bonds	63,633,022	3,211,429	66,844,451
Public Issues:			
Treasury bonds	—	—	—
Total acquisitions	329,002,885	30,676,076	359,678,961
Dispositions:			
Special issues:			
Certificates of indebtedness	256,053,440	26,677,337	282,730,777
Bonds	17,798,001	911,452	18,709,453
Public Issues:			
Treasury bonds	—	10,500	10,500
Total dispositions	273,851,441	27,599,289	301,450,730
Net increase in invested assets	55,151,444	3,076,787	58,228,231
Invested assets, September 30, 1990	203,716,547	11,505,127	215,221,674

Note: All investments are shown at par value.

The effective annual rate of interest earned by the assets of the OASI Trust Fund during the 12 months ending on June 30, 1990, was 9.4 percent, as compared to 9.8 percent earned during the 12 months ending on June 30, 1989. (This period is used, rather than the fiscal year, because interest on special issues is paid semiannually on June 30 and December 31.) The interest rate on special issues purchased by the trust fund in June 1990 was 8.75 percent, payable semiannually. Special-issue bonds with a total par value of $63,633 million were purchased in June 1990.

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, 1990, 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 1991-2005.

B. DISABILITY INSURANCE TRUST FUND

A statement of the income and disbursements of the Federal Disability Insurance Trust Fund during fiscal year 1990, and of the assets of the fund at the beginning and end of the fiscal year, is presented in table 8.

TABLE 8.—STATEMENT OF OPERATIONS OF THE DI TRUST FUND DURING FISCAL YEAR 1990
[In thousands]

Total assets, September 30, 1989		$8,363,222
Receipts:		
Contributions:		
Appropriations:		
Employment taxes	$27,180,416	
Tax credits	137,730	
Total appropriations	27,318,146	
Payment from general fund of the Treasury representing employee-employer contributions on deemed wage credits for military service in 1990	49,041	
Gross contributions	27,367,187	
Less payment to the general fund of the Treasury for contributions subject to refund	75,790	
Net contributions		27,291,397
Income from taxation of benefit payments:		
Withheld from benefit payments to non-resident aliens	3,769	
All other, not subject to withholding	154,000	
Total income from taxation of benefits		157,769
Investment income and interest adjustments:		
Interest on investments	868,043	
Less interest on general fund advance tax transfers	99,794	
Less interest on interfund transfers due to adjustment in allocation of administrative expenses	2,111	
Net investment income and interest adjustments		766,138
Total receipts		28,215,305
Disbursements:		
Benefit payments:		
Gross benefit payments	24,407,041	
Less collected overpayments	106,482	
Less reimbursement for unnegotiated checks	6,702	
Net benefit payments		24,293,857
Transfer to the Railroad Retirement "Social Security Equivalent Benefit Account"		79,886
Payment for costs of vocational rehabilitation services for disabled beneficiaries		33,483
Administrative expenses:		
Department of Health and Human Services	689,327	
Department of the Treasury	18,034	
Demonstration projects and experiments	9,400	
Gross administrative expenses	716,761	
Less receipts from the sale of supplies, materials, etc.	90	
Net administrative expenses		716,671
Total disbursements		25,123,897
Net increase in assets		3,091,408
Total assets, September 30, 1990		11,454,630

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

The total assets of the DI Trust Fund amounted to $8,363 million on September 30, 1989. During fiscal year 1990, total receipts amounted to $28,215 million, and total disbursements were $25,124 million. The assets of the trust fund thus increased by $3,091 million during the year, to a total of $11,455 million on September 30, 1990.

Included in total receipts were $27,318 million representing contributions appropriated to the fund (including transfers of $138 million from the general fund of the Treasury to offset the tax credits allowed against contributions due on earnings of self-employed persons) and $49 million in payments from the general fund of the Treasury representing contributions that would have been paid on estimated deemed wage credits for military service in 1990 if such credits had been considered to be covered wages. As an offset, $76 million 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 $27,291 million, an increase of 15.2 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 $158 million in fiscal year 1990.

Net interest totaling $766 million consisted of interest on the investments of the fund, less interest on amounts of interfund and general-fund transfers.

Of the $25,124 million in total disbursements, $24,294 million was for net benefit payments, excluding collected overpayments of $106 million and the reimbursement of $7 million for unnegotiated benefit checks. This represents an increase of 7.9 percent over the corresponding amount of benefit payments in fiscal year 1989. This increase reflects somewhat the same factors that resulted in the net increase in benefit payments from the OASI Trust Fund.

Provisions governing the financial interchanges between the Railroad Retirement and OASDI programs are described in the preceding section. The determination made as of September 30, 1989, required that a transfer of $75,300,000 be made from the DI Trust Fund to the Social Security Equivalent Benefit Account. A total amount of $79,886,000 was transferred to the SSEBA in June 1990, including interest to the date of transfer amounting to $4,586,000.

The remaining disbursements amounted to $717 million for net administrative expenses (including $9,400,000 for demonstration projects and experiments to test the effect of alternative methods for assisting disabled beneficiaries' attempts to work), and $33 million 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 1990 totaled $11,455 million, consisting of $11,505 million in U.S. Government obligations and, as an offset, an extension of credit amounting to $50 million against securities to be redeemed within the following few days. Table 9 shows the total assets of the fund and their distribution at the end of each fiscal year 1989 and 1990.

TABLE 9.—ASSETS OF THE DI TRUST FUND, BY TYPE, AT END OF FISCAL YEAR, 1989 AND 1990

	September 30, 1989	September 30, 1990
Investments in public-debt obligations:		
Public issues:		
Treasury bonds:		
3.5 percent, 1990	$10,500,000.00	—
3.5 percent, 1998	5,000,000.00	$5,000,000.00
4.125 percent, 1989-94	68,400,000.00	68,400,000.00
4.25 percent, 1987-92	80,800,000.00	80,800,000.00
7.5 percent, 1988-93	26,500,000.00	26,500,000.00
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, 2010	30,250,000.00	30,250,000.00
Total investments in public issues at par value, as shown above	261,200,000.00	250,700,000.00
Unamortized premium or discount, net	-604,489.64	-512,794.48
Total investments in public issues at book value	260,595,510.36	250,187,205.52
Obligations sold only to the trust funds (special issues):		
Certificates of indebtedness:		
8.375 percent, 1990	130,167,000.00	—
8.875 percent, 1991	—	917,477,000.00
Bonds:		
8.375 percent, 1992	160,260,000.00	160,260,000.00
8.375 percent, 1993	201,767,000.00	201,767,000.00
8.375 percent, 1994-95	219,226,000.00	219,226,000.00
8.375 percent, 1996-2000	1,008,835,000.00	1,008,835,000.00
8.375 percent, 2001	591,226,000.00	591,226,000.00
8.75 percent, 1991	125,926,000.00	—
8.75 percent, 1992	41,507,000.00	168,980,000.00
8.75 percent, 1993	47,479,000.00	174,952,000.00
8.75 percent, 1994	339,277,000.00	466,750,000.00
8.75 percent, 1995-2000	—	764,838,000.00
8.75 percent, 2001	—	127,472,000.00
8.75 percent, 2002-03	1,182,452,000.00	1,437,396,000.00
8.75 percent, 2004	191,712,000.00	718,698,000.00
8.75 percent, 2005	—	718,698,000.00
9.25 percent, 1990	159,323,000.00	—
9.25 percent, 1991	465,300,000.00	275,169,000.00
9.75 percent, 1993	142,337,000.00	142,337,000.00
9.75 percent, 1994	142,336,000.00	142,336,000.00
9.75 percent, 1995	481,613,000.00	481,613,000.00

TABLE 9.—ASSETS OF THE DI TRUST FUND, BY TYPE, AT END OF FISCAL YEAR, 1989 AND 1990 (Cont.)

	September 30, 1989	September 30, 1990
Investments in public-debt obligations: (Cont.)		
Obligations sold only to the trust funds (special issues): (Cont.)		
Bonds: (Cont.)		
10.375 percent, 1992-93	$203,006,000.00	$203,006,000.00
10.375 percent, 1996-98	304,512,000.00	304,512,000.00
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, 1992	287,956,000.00	287,956,000.00
10.75 percent, 1993	98,140,000.00	98,140,000.00
10.75 percent, 1996-98	863,865,000.00	863,865,000.00
13.75 percent, 1999	236,555,000.00	236,555,000.00
Total obligations sold only to the trust funds (special issues)	8,167,140,000.00	11,254,427,000.00
Total investments in public-debt obligations (book value[1])	8,427,735,510.36	11,504,614,205.52
Undisbursed balances[2]	-64,513,206.54	-49,984,369.01
Total assets (book value[1])	8,363,222,303.82	11,454,629,836.51

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

[2]Negative figures represented extensions 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.

The effective annual rate of interest earned by the assets of the DI Trust Fund during the 12 months ending on June 30, 1990 was 9.5 percent, as compared to 9.7 percent earned during the 12 months ending on June 30, 1989. The interest rate on public-debt obligations issued for purchase by the trust fund in June 1990 was 8.75 percent, payable semiannually. Special-issue bonds with a total par value of $3,211 million were purchased in June 1990.

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.

VI. 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, 1990, is presented in the preceding section of this report. Estimates of the operations and status of the trust funds during fiscal years 1991-2000 are presented in this section. In addition, similar estimates for calendar years 1991-2000 are presented. Estimates for the first 10 years, rather than the required ensuing 5 years, are shown because of a new short-range test of the financial adequacy of the trust funds, which is described below. 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 Appendix A.

A number of different measures are useful in evaluating the financial status of the trust funds over the next 75 years. 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 "contingency 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 advance tax transfers only if such transfers are needed to enable the timely payment of benefits.) The contingency 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 outgo temporarily exceeds 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.

A new test of the overall financial condition of the trust funds, described later in this section, includes a separate test of financial adequacy over the short-range projection period (the next 10 years), that is applicable to each of the OASI and DI Trust Funds, separately, as well as to the combined funds. In order to meet this short-range test, the estimated contingency fund ratio for each of the OASI and DI programs must either (a) be at least 100 percent throughout the 10-year projection period, or (b) reach a level of at least 100 percent by the beginning of the year following the 5th year and 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 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 (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

[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.

balance for a specified projection 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. Beginning with this year's report, the summarized cost rate includes the cost of reaching and maintaining a "target" trust fund level, or contingency fund ratio. Because a trust fund level of about 1 year's expenditures is considered to be an adequate reserve for unforeseen contingencies, the targeted contingency fund ratio used in determining summarized cost rates is 100 percent of annual expenditures. Accordingly, the summarized cost rate is equal to the ratio of (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.

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 trust fund assets at end of the period in the amount of the next year's outgo. A negative actuarial balance indicates that future income plus the beginning trust fund balance are not sufficient to meet both of these objectives. A positive actuarial balance indicates that in addition to covering all aggregate expenditures in the period, the estimated ending trust fund level is more than the targeted level of 1 year's outgo.

The size of the actuarial balance represents a measure of the program's financial adequacy for the period in question. The actuarial balance can also be interpreted as the amount of change which, if made to each of the combined employee-employer contribution rates scheduled under present law for the next 75 years, would bring the program into exact actuarial balance. Of course, any set of changes in contribution rates, or in benefit costs, that has an equivalent effect on the actuarial balance would also bring the program into exact actuarial balance.

Beginning with this year's report, a new test of the overall financial adequacy of the trust funds is included in the annual report. The new test is designed to reveal problems occurring at any time during the next 75 years. In addition to the short-range test described above, the new test includes a separate long-range test for a set of valuation periods beginning with the first 11 years and continuing through the first 12 years, the first 13 years, etc., up to and including the full 75-year projection period. Previous annual reports included a long-range test of close actuarial balance that was based only on the full 75-year valuation period. However, it was recognized that such a limited test, by itself, was not always sufficient to reveal the timing and extent of temporary problems that could occur within the overall projection period.

Under the new long-range test, summarized income rates and cost rates are calculated for each of the 65 valuation periods in the full 75-year long-range projection period. The first of these periods consists of the next 11 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 65 time periods, the actuarial balance is not less than zero or is negative by, at most, a specified percentage of the summarized cost rate for the same time period. The percentage allowed for a negative actuarial balance is 5 percent for the full 75-year period and is reduced uniformly for shorter periods, approaching zero as the duration of the time periods approaches the first 10 years. The criterion for meeting the test is less stringent for the longer periods in recognition of the greater uncertainty associated with estimates for more distant years.

When a negative actuarial balance in excess of the allowable percentage of the summarized cost rate is projected for one or more of the 65 separate valuation periods, the program fails the long-range portion of the test, and the program is said to be out 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 degree of urgency for any needed corrective action is indicated by the duration of the first period for which the estimated actuarial balance is less than the minimum allowable balance, expressed as a percentage of the summarized cost rate. 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 test 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.

A. ECONOMIC AND DEMOGRAPHIC ASSUMPTIONS

The future income and outgo of the OASDI program depend on many economic and demographic factors, including gross national 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 general level 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 alternatives I, II, and III. It may be noted that recent annual reports, through the 1990 report, included four alternative sets of assumptions, including two intermediate alternatives, II-A and II-B. Beginning with this report, a single intermediate set, alternative II, is shown, representing 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, alternative I is the more optimistic, and 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, they 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.

Economic assumptions

The principal economic assumptions for the three alternatives are summarized in table 10.

TABLE 10.—SELECTED ECONOMIC ASSUMPTIONS BY ALTERNATIVE, CALENDAR YEARS 1960-2065

Calendar year	Average annual percentage increase in— Real GNP[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]
Past experience:							
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	-1.3	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	4.7	7.3	6.5	.8	7.1	7.0	2.9
1978	5.3	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	-.2	9.0	13.4	-4.4	11.0	7.2	1.9
1981	1.9	9.7	10.3	-.6	13.3	7.6	1.6
1982	-2.5	6.5	6.0	.5	12.8	9.7	1.4
1983	3.6	5.0	3.0	2.0	11.0	9.6	1.2
1984	6.8	7.2	3.5	3.7	12.4	7.5	1.8
1985	3.4	4.3	3.5	.8	10.8	7.2	1.7
1986	2.7	4.3	1.6	2.7	8.0	7.0	2.0
1987	3.4	5.0	3.6	1.4	8.4	6.2	1.7
1988	4.5	[7] 5.1	4.0	1.1	8.8	5.5	1.4
1989	2.5	[7] 3.5	4.8	-1.3	8.7	5.3	1.8
1990	.9	[7] 4.9	5.3	-.4	8.6	5.5	.7

TABLE 10.—SELECTED ECONOMIC ASSUMPTIONS BY ALTERNATIVE, CALENDAR YEARS 1960-2065 (Cont.)

	Average annual percentage increase in—						
Calendar year	Real GNP[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]
Alternative I:							
1991	0.6	3.7	4.4	-0.7	8.0	6.5	0.9
1992	3.6	4.9	2.8	2.1	7.3	6.1	1.0
1993	3.5	5.2	3.1	2.1	6.6	5.7	1.2
1994	3.3	5.0	3.0	2.0	6.1	5.4	1.2
1995	3.1	5.1	3.0	2.1	6.1	5.2	1.1
1996	3.0	5.1	3.0	2.1	6.1	5.0	1.1
1997	2.9	5.1	3.0	2.1	6.1	4.9	1.1
1998	2.8	5.0	3.0	2.0	6.1	4.9	1.0
1999	2.8	5.1	3.0	2.1	6.1	4.8	1.0
2000	2.8	5.1	3.0	2.1	6.1	4.8	1.0
2005	2.6	4.7	3.0	1.7	6.0	5.0	1.0
2010 & later	[8]2.3	4.7	3.0	1.7	6.0	5.0	[8].6
Alternative II:							
1991	-.1	3.7	4.9	-1.2	8.0	6.6	.8
1992	3.1	5.5	4.0	1.5	7.6	6.3	.9
1993	2.7	5.5	4.0	1.5	7.2	6.0	1.1
1994	2.3	5.3	4.0	1.3	6.8	5.9	1.0
1995	2.2	5.5	4.0	1.5	6.8	5.8	.9
1996	2.2	5.4	4.0	1.4	6.7	5.8	.9
1997	2.2	5.4	4.0	1.4	6.6	5.8	.9
1998	2.2	5.3	4.0	1.3	6.5	5.8	.9
1999	2.2	5.3	4.0	1.3	6.5	5.8	.9
2000	2.2	5.3	4.0	1.3	6.4	5.7	.8
2005	1.9	5.1	4.0	1.1	6.3	6.0	.7
2010 & later	[8]1.8	5.1	4.0	1.1	6.3	6.0	[8].5
Alternative III:							
1991	-2.3	2.5	6.1	-3.6	8.3	7.0	.6
1992	1.2	6.2	5.6	.5	8.5	7.5	.5
1993	2.6	7.5	6.4	1.1	8.7	7.1	.9
1994	.7	6.1	6.2	-.1	8.6	7.0	.9
1995	-.7	4.1	4.8	-.7	8.2	8.0	.6
1996	3.3	6.8	5.0	1.8	7.6	7.4	.8
1997	2.4	6.2	5.0	1.2	7.0	7.0	1.0
1998	1.7	5.8	5.0	.8	6.9	6.8	.9
1999	1.6	5.8	5.0	.8	6.8	6.8	.8
2000	1.6	5.8	5.0	.8	6.7	6.8	.7
2005	1.3	5.6	5.0	.6	6.5	7.0	.5
2010 & later	[8]1.3	5.6	5.0	.6	6.5	7.0	[8].4

[1]The real GNP (gross national product) is the value of total output of goods and services, expressed in 1982 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 2000, the rates shown are unadjusted civilian unemployment rates. After 2000, the rates are total rates (including military personnel), adjusted by age and sex based on the estimated total labor force on July 1, 1990.

[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.

[8]This value is for 2010. The annual percentage increase in labor force and real GNP is assumed to continue to change after 2010 for each alternative to reflect the dependence of labor force growth on the size and age-sex distribution of the population. The increases in real GNP for 2065 are 2.4, 1.3, and 0.3 percent for alternatives I, II, and III, respectively. The changes in total labor force for 2065 are 0.6, 0.1, and -0.5 percent for alternatives I, II, and III, respectively.

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. Alternative I presents the most optimistic outlook, with sustained robust economic growth and low inflation following the mild recession, which is assumed to have ended early in 1991. The intermediate set of assumptions—alternative II—represents the current consensus view of moderate growth and inflation following the mild recession, which is assumed to end by the middle of 1991. Alternative III is a relatively pessimistic forecast in which the economy experiences two recessions during the next 10 years. The total declines in real GNP for the projected recessions in alternative III are slightly less than those of recent recessions; however, the intervening recoveries are assumed to be substantially weaker than those experienced in the recent past. This scenario presents an assessment of the combined effects on the OASDI program of business cycles and generally weak economic growth.

The period of sustained real economic growth, which began in the fourth quarter of 1982, ended with the recession that started with the fourth quarter of 1990. After total declines in real GNP of 0.7 percent and 0.9 percent through the first quarter of 1991 for alternatives I and II, respectively, a return to steady economic growth is assumed through the end of the decade. Real growth is assumed to be stronger for alternative I than for alternative II.

For alternative III, the recession that began in 1990 is assumed to result in a total decline in real GNP of 3.7 percent through the fourth quarter of 1991. After 9 quarters of recovery, a second recession, with a total decline in real GNP of 3.0 percent, is assumed to begin in the second quarter of 1994, lasting through the first quarter of 1995.

After the year 2000, the projected rates of growth in real GNP, 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 GNP growth for each alternative. For alternatives I and II, the unemployment rate is assumed to move gradually toward its ultimate average level after 1991. For alternative III, the unemployment rate is assumed to reach its ultimate average level after the recovery that is assumed to follow the second recession.

Unemployment rates through 2000 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 2000, 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 1990 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.

For the intermediate alternative II projection, each of the other economic parameters is selected reflecting what is believed to be the most likely future course of the economy, consistent with the assumed pattern of real GNP growth. The average annual unemployment rate is assumed to rise from the level experienced for 1990, 5.5 percent, to 6.6 percent for 1991 as a result of the recession. After 1991 the unemployment rate is assumed to decline gradually reaching 5.8 percent in 1995, which is about equivalent to the assumed ultimate total unemployment rate (age-sex adjusted to the 1990 labor force) of 6.0 percent. Thereafter, the total unemployment rate remains at about 6.0 percent while the non-age-sex-adjusted rate declines slightly, reflecting the changing age-sex distribution of the labor force. The annual rate of increase in the average wage in covered employment is assumed to decline from the estimated 4.9-percent increase in 1990 to 3.7 percent for 1991, reflecting the economic recession. After 1991, the average wage grows at 5.5 percent for 2 years before gradually declining to the ultimate assumed rate of 5.1 percent. Wage growth rates are higher than the ultimate assumption until after the year 2000 reflecting the gradual recovery from the 1990-91 recession and the increasing coverage of Federal civilian employees, who have higher earnings than the average employee in the U.S. The annual rate of increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is assumed to decline steadily from 5.3 percent in 1990 to an ultimate rate of 4.0 percent in 1992. 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 increase in the average wage in covered employment and in the CPI) is assumed to be -1.2 percent for 1991 following differentials of -1.3 percent and -0.4 percent for 1989 and 1990, respectively. After the recession of 1990-91, the real-wage differential is projected to be 1.5 percent for 2 years and then to decline gradually toward the ultimate assumed differential of 1.1 percent. The average annual interest rate is assumed to reach its ultimate value of 6.3 percent by 2005. The annual rate of growth in total labor force is projected to increase from 0.7 percent estimated for 1990 to 1.1 percent for 1993. After 1994 the labor force is projected to increase at less than 1.0 percent per year, reflecting the slower growth in the working-age population than was experienced through 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.

Demographic assumptions

The principal demographic assumptions for the three alternatives are shown in table 11.

For the intermediate alternative II, the assumed ultimate total fertility rate of 1.9 children per woman is attained in 2015 after a gradual decline from the estimated 1990 level of 2.05 children per woman. The age-sex-adjusted death rate is assumed to decrease gradually during the entire projection period, with a reduction of 35 percent from the 1989 level by 2065. The resulting life expectancies at birth in 2065 are 77.5 years for men and 83.9 years for women, compared to 71.8 and 78.6 years, respectively, in 1989. Life expectancies at age 65 in 2065 are projected to be 18.5 years for men and 22.4 years for women, compared to 15.2 and 18.9 years, respectively, in 1989. The projected death rates reflect the effects of assumed cases of Acquired Immunodeficiency Syndrome (AIDS), using projections through 1992 prepared by the Centers for Disease Control (CDC) as a starting point. Total net immigration is assumed to be 750,000 persons per year beginning in 1992. The assumed level of net annual immigration is the combination of 550,000 net legal immigrants per year and 200,000 net other-than-legal immigrants per year. The assumed net legal immigration is 150,000 higher than in last year's report for years after 1990 as a result of enactment of the Immigration Act of 1990.

For alternative I, the total fertility rate is assumed to rise to an ultimate level of 2.2 children per woman for 2015. The age-sex-adjusted death rate is assumed to decrease more slowly than for alternative II, with the reduction from the 1989 level being 19 percent by 2065. The resulting life expectancies at birth in 2065 are 75.2 years for men and 81.0 years for women, while at age 65 they are 16.3 and 20.0 years, respectively. Total net immigration is assumed to be 1,000,000 persons per year. The assumed level of net annual immigration is the combination of 650,000 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 2015. The age-sex-adjusted death rate is assumed to decrease more rapidly than for alternative II, with the reduction from the 1989 level being 51 percent by 2065. The resulting life expectancies at birth in 2065 are 80.9 years for men and 87.8 years for women, while at age 65 they are 21.5 and 25.6 years, respectively. Total net immigration is assumed to be 600,000 persons per year, the combination of 500,000 net legal immigrants per year and 100,000 net other-than-legal immigrants per year.

TABLE 11.—SELECTED DEMOGRAPHIC ASSUMPTIONS BY ALTERNATIVE, CALENDAR YEARS 1940-2065

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
Past experience:						
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	878.0	69.9	77.5	14.0	18.4
1981	1.83	853.4	70.4	77.9	14.2	18.6
1982	1.83	827.8	70.8	78.2	14.5	18.8
1983	1.81	835.0	70.9	78.1	14.3	18.6
1984	1.80	828.2	71.1	78.2	14.4	18.7
1985	1.84	830.0	71.1	78.2	14.4	18.6
1986	1.84	822.8	71.2	78.3	14.5	18.7
1987	1.87	813.9	71.3	78.4	14.6	18.7
1988[4]	1.93	822.6	71.2	78.4	14.6	18.7
1989[4]	2.00	790.1	71.8	78.6	15.2	18.9
Alternative I:						
1990	2.05	784.5	72.0	78.7	15.2	18.9
1995	2.09	765.3	72.7	78.9	15.3	18.9
2000	2.12	753.6	73.0	79.1	15.3	18.9
2005	2.15	743.3	73.3	79.3	15.3	18.9
2010	2.17	732.9	73.5	79.4	15.4	19.0
2015	2.20	723.1	73.7	79.6	15.5	19.0
2020	2.20	713.7	73.9	79.7	15.6	19.1
2025	2.20	704.6	74.0	79.9	15.7	19.2
2030	2.20	695.8	74.2	80.1	15.7	19.3
2035	2.20	687.2	74.4	80.2	15.8	19.4
2040	2.20	678.9	74.5	80.3	15.9	19.5
2045	2.20	670.8	74.7	80.5	16.0	19.6
2050	2.20	663.0	74.8	80.6	16.1	19.7
2055	2.20	655.4	75.0	80.7	16.1	19.8
2060	2.20	648.0	75.1	80.9	16.2	19.9
2065	2.20	640.8	75.2	81.0	16.3	20.0
Alternative II:						
1990	2.05	791.7	71.9	78.8	15.3	19.0
1995	2.03	754.2	72.3	79.4	15.6	19.3
2000	2.00	722.8	72.9	79.9	15.9	19.6
2005	1.97	690.7	73.8	80.4	16.1	19.8

TABLE 11.—SELECTED DEMOGRAPHIC ASSUMPTIONS BY ALTERNATIVE, CALENDAR YEARS 1940-2065 (Cont.)

Calendar year	Total fertility rate[1]	Age-sex-adjusted death rate[2] (per 100,000)	Life expectancy[3] At birth Male	At birth Female	At age 65 Male	At age 65 Female
Alternative II: (Cont.)						
2010	1.93	667.8	74.3	80.8	16.3	20.0
2015	1.90	649.8	74.7	81.1	16.5	20.2
2020	1.90	633.2	75.0	81.4	16.7	20.4
2025	1.90	617.2	75.3	81.7	16.9	20.7
2030	1.90	601.9	75.6	82.0	17.1	20.9
2035	1.90	587.3	75.9	82.2	17.3	21.1
2040	1.90	573.2	76.2	82.5	17.5	21.3
2045	1.90	559.8	76.4	82.8	17.7	21.5
2050	1.90	546.8	76.7	83.1	17.9	21.7
2055	1.90	534.4	77.0	83.4	18.1	22.0
2060	1.90	522.5	77.3	83.6	18.3	22.2
2065	1.90	511.0	77.5	83.9	18.5	22.4
Alternative III:						
1990	2.05	800.4	72.0	78.9	15.3	19.0
1995	1.96	758.6	72.3	79.9	15.9	19.7
2000	1.87	738.8	72.0	80.5	16.4	20.2
2005	1.78	683.7	73.3	81.3	16.8	20.7
2010	1.69	623.0	75.1	82.1	17.2	21.1
2015	1.60	586.5	76.1	82.7	17.6	21.5
2020	1.60	560.2	76.7	83.3	18.0	21.9
2025	1.60	537.1	77.1	83.8	18.4	22.3
2030	1.60	515.4	77.5	84.3	18.8	22.7
2035	1.60	494.6	78.0	84.8	19.1	23.1
2040	1.60	474.7	78.5	85.3	19.5	23.5
2045	1.60	455.6	79.0	85.9	19.9	24.0
2050	1.60	437.4	79.5	86.4	20.3	24.4
2055	1.60	420.1	79.9	86.9	20.7	24.8
2060	1.60	403.6	80.4	87.4	21.1	25.2
2065	1.60	388.0	80.9	87.8	21.5	25.6

[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 2015.

[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]Estimated.

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. Appendix A includes a discussion of some of those factors.

The ultimate values presented in tables 10 and 11 reflect significant changes from the values used for the 1990 Annual Report. Lower assumed real growth in average wages, productivity, and GNP, along with increased rates of real interest reflect a reassessment of past data and future prospects. The ultimate annual assumptions in alternative II, for example, include a real-wage differential of 1.1 percent per year and a real interest rate of 2.3 percent per year instead of 1.3 percent and 2.0 percent, respectively, which were assumed for alternative II-B in the 1990 report. Increased immigration reflects legislation enacted since the last report. The ultimate net immigration rate assumed under alternative II is 750,000 per year, compared to 600,000 per year for alternatives II-A and II-B in the 1990 report. In addition, the percentage of all U.S. workers that is covered under OASDI is higher reflecting legislation since the last report and the ultimate percentage of covered earnings that is taxable is projected to be significantly higher for this year's report reflecting analysis based on recent data. The ultimate percentage taxable is assumed to be 87 percent under alternative II, which is about one percentage point higher than under alternative II-B in the 1990 report. These and other changes are discussed later in this section.

B. AUTOMATIC ADJUSTMENTS

Under the automatic-adjustment provisions of the law, benefits generally are increased once a year to reflect increases in the cost of living. These automatic increases may be modified under certain circumstances, as explained below. 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 5.4 percent, effective for December 1990, was announced in October 1990, as described in Appendix C. 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 through the third quarter of the current year.[1]

The law provides for an automatic increase in the contribution and benefit base, based on the increase in average wages, for the year following a year in which an automatic benefit increase becomes effective. Based on a special transition provision of the "Omnibus Budget Reconciliation Act of 1989", however, the contribution and benefit base for 1991 was established at $53,400.

The exempt amounts under the retirement earnings test are also increased automatically by the increase in average wages, following an automatic benefit increase. An automatic increase in the exempt amount for beneficiaries at ages 65 through 69—from $9,360 in 1990 to $9,720 in 1991—was announced in October 1990. Similarly, an automatic increase was announced in the exempt amount for beneficiaries under age 65—from $6,840 in 1990 to $7,080 in 1991. Appendix C describes the aforementioned adjustments, as well as the determinations of the following amounts:

1. The amount of earnings a worker must have in 1991 to be credited with a quarter of coverage;
2. The dollar amounts (or "bend points") in the formulas used to compute benefits payable on the earnings of workers who first become eligible for retirement or disability benefits, or who die before becoming eligible for such benefits, in 1991; and

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[1] If the combined assets of the OASI and DI Trust Funds, as a percentage of annual expenditures, are below a specified level, the automatic benefit increase is limited to the lesser of the increases in wages or prices. This specified level was 15 percent with respect to benefit increases for December of each year 1984-88, and is 20 percent for all subsequent years. This "stabilizer" provision has not affected any benefit increases since its enactment in 1983, and it would not affect any specific future increases shown in this report under any of the three sets of assumptions. Under alternatives II and III, however, the combined trust funds eventually fall below the 20-percent threshold shortly before exhaustion in the next century. Thus, at that time, the stabilizer provision could affect a benefit increase if average wages are then increasing at a slower pace than prices.

3. The average of total wages reported for calendar year 1989, to be used for indexing earnings of workers who first become eligible for benefits, or who die before such eligibility, in 1991 or later.

An historical summary of the Social Security program amounts determined under the automatic-adjustment provisions, and the average-wage series used for indexing earnings, are shown in Appendix D. Estimates of the corresponding amounts through 2000 are also shown in Appendix D.

The three alternative sets of economic assumptions described in the previous subsection result in the cost-of-living benefit increases and contribution and benefit bases shown in table 12 for each year through 2000. (The actual benefit increase for 1990 and the actual contribution and benefit bases for 1990 and 1991 are also shown as a basis for comparison.)

TABLE 12.—COST-OF-LIVING BENEFIT INCREASES AND CONTRIBUTION AND BENEFIT BASES, BY ALTERNATIVE, CALENDAR YEARS 1990-2000

Calendar year	Cost-of-living benefit increase[1] (percent) based on alternative—			Contribution and benefit base[2] based on alternative—		
	I	II	III	I	II	III
1990	5.4	5.4	5.4	$51,300	$51,300	$51,300
1991	4.2	4.8	6.4	53,400	53,400	53,400
1992	2.8	4.0	5.5	56,100	55,800	55,500
1993	3.2	4.0	6.5	58,200	57,900	57,000
1994	3.0	4.0	6.0	60,900	60,900	60,300
1995	3.0	4.0	4.7	63,900	64,200	64,800
1996	3.0	4.0	5.0	66,900	67,500	68,700
1997	3.0	4.0	5.0	70,200	71,100	71,400
1998	3.0	4.0	5.0	73,800	74,700	76,200
1999	3.0	4.0	5.0	77,400	78,600	80,700
2000	3.0	4.0	5.0	81,300	82,800	85,200

[1]Effective with benefits for December of the year shown.

[2]Effective on January 1 of the year shown.