

APPENDIX F.—LONG-RANGE ESTIMATES OF SOCIAL SECURITY TRUST FUND OPERATIONS IN DOLLARS

This appendix presents long-range projections of the operations of the combined OASI and DI Trust Funds and in some cases the HI Trust Fund. It provides the means to track the progress of the funds during the projection period, as well as the potential budgetary impact of the funds' operations. Several economic series, or "indices," are provided to allow current dollars to be adjusted for variations caused by changes in prices, wages, and certain other aspects of economic growth during the projection period.

The selection of a particular index for adjustment reflects the analyst's decision of which aspect of the economy to use as a standard. Table F1 presents five such indices for adjustment, which consider the problem of standardization from different points of view.

One of the most common forms of standardization is based on some measure of change in the prices of consumer goods. One such price index is the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W, hereafter referred to as "CPI"), which is published by the Bureau of Labor Statistics, Department of Labor. This is the index used to determine annual increases in OASDI monthly benefits payable after the year of initial eligibility. The CPI is assumed to increase ultimately at annual rates of 2.0, 3.0, 4.0, and 5.0 percent for alternatives I, II-A, II-B, and III, respectively. Constant-dollar values (adjusted by the CPI-W) are provided in table F2.

Another type of standardization combines the effects of price inflation with real-wage growth. The wage index presented here is the "SSA average wage index," as defined in section 215(i)(1)(G) of the Social Security Act. This index is used to make annual adjustments to many earnings-related quantities embodied in the Social Security Act, such as the contribution and benefit base. The average annual wage is assumed to increase ultimately by 4.2, 4.7, 5.3, and 5.8 percent under alternatives I, II-A, II-B, and III, respectively.

The payroll index adjusts for the effect of changes in the number of workers as well as for the effects of price inflation and real-wage growth. The OASDI taxable payroll consists of all earnings subject to OASDI taxation, adjusted for the lower effective tax rate on multiple-employer "excess wages," and including deemed wage credits for military service. The gross national product index adjusts for the same effects as the taxable payroll index, plus the effect of other changes in the national economy. No explicit assumptions are made about growth in taxable payroll or GNP. These series are derived from the mathematical interactions of other more basic economic and demographic assumptions, as discussed in Appendix A.

Discounting with interest is another way of adjusting current dollars. The series of interest-rate factors included here is based on the average of the assumed annual interest rates for special public-debt obligations issuable to the trust funds. Ultimate nominal interest rates compounded semiannually, are assumed to be approximately 5.0, 5.5, 6.0, and 6.5 percent for alternatives I, II-A, II-B, and III, respectively.

TABLE F1.—SELECTED ECONOMIC VARIABLES BY ALTERNATIVE,
CALENDAR YEARS 1989-2065
[GNP and taxable payroll in billions]

Calendar year	Adjusted CPI ¹	SSA average wage index ²	Taxable payroll ³	Gross national product	Compound interest-rate factor ⁴
Alternative I:					
1989.....	100.00	\$20,703	\$2,284	\$5,234	1.0000
1990.....	103.04	21,807	2,431	5,584	1.0885
1991.....	105.94	22,933	2,593	5,946	1.1752
1992.....	108.60	24,030	2,752	6,301	1.2582
1993.....	111.07	25,125	2,911	6,657	1.3373
1994.....	113.37	26,174	3,072	7,015	1.4120
1995.....	115.64	27,207	3,236	7,384	1.4816
1996.....	117.95	28,246	3,400	7,758	1.5527
1997.....	120.31	29,342	3,569	8,146	1.6291
1998.....	122.71	30,475	3,746	8,548	1.7114
2000.....	127.67	33,088	4,148	9,445	1.8890
2005.....	140.96	40,646	5,341	12,114	2.4178
2010.....	155.63	49,929	6,759	15,298	3.0946
2015.....	171.83	61,332	8,431	19,059	3.9609
2020.....	189.71	75,341	10,449	23,621	5.0697
2025.....	209.46	92,548	12,961	29,302	6.4889
2030.....	231.26	113,686	16,182	36,587	8.3053
2035.....	255.33	139,651	20,319	45,943	10.6302
2040.....	281.90	171,547	25,531	57,729	13.6060
2045.....	311.25	210,728	32,063	72,501	17.4147
2050.....	343.64	258,858	40,284	91,093	22.2897
2055.....	379.41	317,980	50,707	114,663	28.5293
2060.....	418.90	390,605	63,918	144,539	36.5156
2065.....	462.49	479,818	80,562	182,179	46.7375
Alternative II-A:					
1989.....	100.00	20,480	2,275	5,204	1.0000
1990.....	103.72	21,585	2,417	5,555	1.0916
1991.....	107.03	22,650	2,571	5,894	1.1831
1992.....	110.25	23,739	2,724	6,238	1.2730
1993.....	113.56	24,888	2,881	6,601	1.3594
1994.....	116.96	26,057	3,046	6,982	1.4455
1995.....	120.47	27,242	3,219	7,376	1.5304
1996.....	124.08	28,460	3,398	7,793	1.6177
1997.....	127.81	29,756	3,585	8,232	1.7100
1998.....	131.64	31,080	3,764	8,689	1.8076
2000.....	139.66	34,070	4,222	9,687	2.0147
2005.....	161.90	42,866	5,535	12,711	2.6425
2010.....	187.69	53,932	7,139	16,435	3.4660
2015.....	217.58	67,854	9,046	20,900	4.5460
2020.....	252.23	86,371	11,351	26,353	5.9626
2025.....	292.41	107,410	14,212	33,155	7.8206
2030.....	338.98	135,138	17,858	41,865	10.2576
2035.....	392.97	170,024	22,524	53,060	13.4541
2040.....	455.56	213,916	28,389	67,197	17.6465
2045.....	528.12	269,139	35,697	84,905	23.1454
2050.....	612.24	338,618	44,830	107,143	30.3577
2055.....	709.75	426,033	56,342	135,306	39.8176
2060.....	822.80	536,015	70,910	171,113	52.2252
2065.....	953.85	674,389	89,272	216,458	68.4992
Alternative II-B:					
1989.....	100.00	20,522	2,274	5,200	1.0000
1990.....	104.48	21,583	2,405	5,530	1.0965
1991.....	109.16	22,717	2,563	5,884	1.1989
1992.....	113.89	23,933	2,724	6,264	1.3037
1993.....	118.65	25,275	2,903	6,684	1.4102
1994.....	123.43	26,645	3,093	7,123	1.5167
1995.....	128.37	28,066	3,294	7,581	1.6225
1996.....	133.50	29,554	3,502	8,066	1.7305
1997.....	138.84	31,144	3,723	8,581	1.8424
1998.....	144.39	32,777	3,957	9,124	1.9582
2000.....	156.17	36,343	4,455	10,291	2.2035
2005.....	190.01	47,051	6,000	13,936	2.9600
2010.....	231.18	60,913	7,965	18,640	3.9761
2015.....	281.26	78,859	10,389	24,515	5.3410
2020.....	342.20	102,092	13,419	31,971	7.1744
2025.....	416.34	132,170	17,291	41,596	9.6373
2030.....	506.54	171,110	22,362	54,316	12.9456

TABLE F1.—SELECTED ECONOMIC VARIABLES BY ALTERNATIVE,
CALENDAR YEARS 1989-2065 (Cont.)
[GNP and taxable payroll in billions]

Calendar year	Adjusted CPI ¹	SSA average wage index ²	Taxable payroll ³	Gross national product	Compound interest-rate factor ⁴
Alternative II-B: (Cont.)					
2035.....	616.28	\$221,522	\$29,026	\$71,185	17.3896
2040.....	749.80	286,787	37,653	93,233	23.3592
2045.....	912.24	371,280	48,732	121,832	31.3780
2050.....	1,109.89	480,665	62,985	158,985	42.1496
2055.....	1,350.34	622,278	81,474	207,639	56.6188
2060.....	1,642.90	805,613	105,533	271,546	76.0551
2065.....	1,998.84	1,042,962	136,739	365,237	102.1635
Alternative III:					
1989.....	100.00	20,028	2,220	5,066	1.0000
1990.....	105.84	21,073	2,307	5,358	1.1030
1991.....	112.65	22,355	2,476	5,779	1.2217
1992.....	119.73	23,615	2,653	6,178	1.3513
1993.....	125.68	24,685	2,768	6,435	1.4842
1994.....	132.31	26,281	2,970	6,954	1.6172
1995.....	138.92	27,762	3,176	7,444	1.7473
1996.....	145.87	29,339	3,401	7,960	1.8813
1997.....	153.16	31,022	3,633	8,494	2.0186
1998.....	160.82	32,760	3,877	9,057	2.1584
2000.....	177.30	36,670	4,395	10,295	2.4516
2005.....	226.29	48,611	6,013	14,229	3.3708
2010.....	288.81	64,442	8,124	19,456	4.6345
2015.....	368.60	85,427	10,761	26,108	6.3721
2020.....	470.44	113,246	14,068	34,628	8,7611
2025.....	600.41	150,125	18,293	45,680	12,0458
2030.....	766.29	199,012	23,785	60,256	16,5619
2035.....	978.01	263,820	30,965	75,579	22,7713
2040.....	1,248.21	349,733	40,189	104,781	31.3087
2045.....	1,593.07	463,623	51,914	137,306	43.0468
2050.....	2,033.21	614,601	66,780	179,180	59.1858
2055.....	2,594.94	814,745	85,804	233,552	81.3757
2060.....	3,311.88	1,080,066	110,415	304,882	111.8848
2065.....	4,226.89	1,431,787	142,168	398,234	153.8324

¹The CPI used to adjust OASDI benefits is the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W), as defined by the Bureau of Labor Statistics, Department of Labor. The values shown are adjusted by dividing the average of the 12 monthly values of the CPI by the analogous value for 1989, and multiplying the result by 100, thereby initializing the CPI at 100 for 1989.

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

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

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

Table F2 shows estimated operations of the combined OASI and DI Trust Funds in constant dollars adjusted by the CPI indexing series discussed above. Items included in the table are: income excluding interest, interest income, total income, total outgo, and assets at the end of the year. Income excluding interest consists of payroll-tax contributions, income from taxation of benefits, and miscellaneous reimbursements from the general fund of the Treasury. Outgo consists of benefit payments, administrative expenses, net transfers from the OASI and DI Trust Funds to the Railroad Retirement program under the financial-interchange provisions, and payments for vocational rehabilitation services for disabled beneficiaries. These estimates are based on the four sets of assumptions I, II-A, II-B, and III described earlier in this report.

TABLE F2.—ESTIMATED OPERATIONS OF THE COMBINED OASI AND DI TRUST FUNDS IN
CONSTANT DOLLARS¹ BY ALTERNATIVE,
CALENDAR YEARS 1989-2065
[In billions]

Calendar year	Income excluding interest	Interest income	Total income	Outgo	Assets at end of year
Alternative I:					
1989.....	\$282.3	\$13.0	\$295.3	\$235.2	\$169.9
1990.....	296.6	18.3	314.8	242.1	237.6
1991.....	307.2	23.7	330.9	247.6	314.4
1992.....	318.1	29.0	347.1	253.1	400.7
1993.....	329.2	34.1	363.3	258.5	496.6
1994.....	340.6	38.9	379.5	263.9	602.2
1995.....	351.6	43.2	394.9	268.7	716.5
1996.....	362.5	47.5	410.0	273.7	838.7
1997.....	372.8	52.3	425.1	279.0	968.4
1998.....	383.7	57.8	441.6	284.6	1,106.4
2000.....	409.2	70.6	479.8	298.0	1,410.9
2005.....	479.5	109.7	589.2	338.1	2,350.3
2010.....	551.9	166.6	718.5	401.7	3,536.4
2015.....	626.5	230.2	856.7	502.5	4,846.7
2020.....	707.2	293.1	1,000.3	634.9	6,131.4
2025.....	798.2	351.9	1,150.1	777.5	7,329.0
2030.....	905.1	408.6	1,313.7	913.0	8,496.7
2035.....	1,030.0	471.3	1,501.3	1,032.6	9,802.6
2040.....	1,171.3	549.8	1,721.0	1,138.8	11,450.4
2045.....	1,331.2	650.9	1,982.1	1,260.5	13,570.6
2050.....	1,514.5	776.9	2,291.4	1,416.8	16,201.9
2055.....	1,726.8	929.1	2,655.9	1,607.3	19,376.7
2060.....	1,971.4	1,112.0	3,083.5	1,824.1	23,191.2
2065.....	2,250.2	1,332.6	3,582.8	2,066.2	27,793.2
Alternative II-A:					
1989.....	281.1	13.0	294.1	235.7	168.1
1990.....	293.3	18.1	311.3	241.4	232.1
1991.....	301.6	23.4	325.0	248.4	301.4
1992.....	310.3	28.4	338.7	254.1	377.2
1993.....	318.9	33.2	352.0	259.4	458.9
1994.....	327.5	37.7	365.2	264.6	546.2
1995.....	335.9	41.9	377.8	269.8	638.2
1996.....	344.5	46.1	390.5	274.9	735.3
1997.....	352.8	50.5	403.3	280.7	836.4
1998.....	361.5	55.3	416.8	286.6	942.2
2000.....	381.2	65.2	446.4	299.0	1,170.1
2005.....	433.6	93.9	527.5	335.6	1,830.1
2010.....	484.9	134.5	619.4	391.8	2,598.6
2015.....	533.0	174.1	707.1	479.0	3,330.6
2020.....	580.9	203.5	784.4	590.7	3,859.3
2025.....	631.2	217.5	848.6	707.8	4,094.0
2030.....	687.1	215.6	902.7	815.7	4,036.3
2035.....	749.1	201.9	951.1	905.9	3,765.5
2040.....	814.8	181.4	996.2	981.2	3,372.7
2045.....	884.1	155.3	1,039.4	1,063.2	2,874.6
2050.....	958.7	120.2	1,078.9	1,164.6	2,199.4
2055.....	1,040.6	71.0	1,111.6	1,283.5	1,250.9
2060.....	(*)	(*)	(*)	(*)	(*)
Alternative II-B:					
1989.....	281.2	13.1	294.2	235.7	168.3
1990.....	290.3	18.1	308.4	242.3	227.2
1991.....	294.8	23.3	318.1	247.7	287.9
1992.....	300.5	28.2	328.7	252.8	351.8
1993.....	307.5	33.1	340.6	258.3	420.0
1994.....	315.1	37.8	352.9	263.2	493.5
1995.....	322.6	42.2	364.8	267.8	571.5
1996.....	330.1	46.4	376.5	272.6	653.4
1997.....	337.2	50.6	387.8	277.5	738.6
1998.....	344.7	54.9	399.5	282.6	827.1

TABLE F2.—ESTIMATED OPERATIONS OF THE COMBINED OASI AND DI TRUST FUNDS IN CONSTANT DOLLARS¹ BY ALTERNATIVE,
CALENDAR YEARS 1989-2065 (Cont.)
[In billions]

Calendar year	Income excluding interest	Interest income	Total income	Outgo	Assets at end of year
Alternative II-B: (Cont.)					
2000.....	\$359.9	\$62.9	\$422.9	\$293.1	\$1,012.9
2005.....	401.1	84.8	485.9	323.6	1,522.3
2010.....	440.1	117.1	557.2	370.7	2,083.1
2015.....	474.6	145.4	620.0	444.2	2,558.5
2020.....	507.4	160.7	668.1	537.2	2,798.3
2025.....	540.9	158.2	699.0	632.3	2,727.5
2030.....	577.5	138.0	715.6	716.4	2,355.2
2035.....	617.5	104.4	721.9	782.3	1,757.7
2040.....	658.7	62.3	721.0	822.4	1,019.2
2045.....	700.8	13.2	714.0	884.8	158.5
2046.....	(*)	(*)	(*)	(*)	(*)
Alternative III:					
1989.....	274.8	12.8	287.7	236.5	161.0
1990.....	275.5	16.8	292.3	241.8	202.5
1991.....	276.0	20.8	296.8	246.2	240.8
1992.....	278.7	24.7	303.4	251.9	278.1
1993.....	277.5	28.0	305.4	260.0	310.3
1994.....	282.5	30.6	313.1	264.4	343.5
1995.....	288.0	32.8	320.7	269.6	378.3
1996.....	293.8	34.6	328.3	274.8	413.8
1997.....	298.9	36.1	335.0	279.8	449.3
1998.....	303.8	37.5	341.3	285.1	484.0
2000.....	313.5	39.7	353.2	292.7	554.9
2005.....	338.8	44.0	382.7	314.0	729.9
2010.....	361.0	54.1	415.1	349.1	889.3
2015.....	377.2	55.9	433.1	406.6	898.7
2020.....	389.8	40.5	430.3	479.0	623.3
2025.....	(*)	(*)	(*)	(*)	(*)

¹The adjustment from current to constant dollars is by the CPI indexing series shown in table F1.

*The combined OASI and DI Trust Funds are estimated to become exhausted during this year.

Table F3 shows estimated operations of the combined OASI and DI Trust Funds in current dollars—that is in dollars unadjusted for inflation. Items included in the table are: income excluding interest, interest income, total income, total outgo, and assets at the end of the year. These estimates, based on the four sets of economic and demographic assumptions I, II-A, II-B, and III described earlier in this report, are presented to facilitate independent analysis.

TABLE F3.—ESTIMATED OPERATIONS OF THE COMBINED OASI AND DI TRUST FUNDS IN CURRENT DOLLARS BY ALTERNATIVE,
CALENDAR YEARS 1989-2065
[In billions]

Calendar year	Income excluding interest	Interest income	Total income	Outgo	Assets at end of year
Alternative I:					
1989.....	\$282.3	\$13.0	\$295.3	\$235.2	\$169.9
1990.....	305.6	18.8	324.4	249.5	244.8
1991.....	325.5	25.1	350.6	262.3	333.1
1992.....	345.5	31.5	376.9	274.9	435.1
1993.....	365.7	37.9	403.5	287.1	551.6
1994.....	386.1	44.1	430.2	299.1	682.7
1995.....	406.6	50.0	456.6	310.7	828.6
1996.....	427.6	56.0	483.5	322.9	989.3
1997.....	448.5	62.9	511.5	335.6	1,165.1
1998.....	470.9	71.0	541.9	349.3	1,357.7

TABLE F3.—ESTIMATED OPERATIONS OF THE COMBINED OASI AND DI TRUST FUNDS IN CURRENT DOLLARS BY ALTERNATIVE,
CALENDAR YEARS 1989-2065 (Cont.)
[In billions]

Calendar year	Income excluding interest	Interest income	Total income	Outgo	Assets at end of year
Alternative I: (Cont.)					
2000.....	\$522.4	\$90.1	\$612.6	\$380.4	\$1,801.3
2005.....	675.9	154.6	830.5	476.7	3,313.0
2010.....	858.9	258.2	1,118.1	625.2	5,503.8
2015.....	1,076.5	395.5	1,472.0	863.4	8,328.0
2020.....	1,341.6	556.1	1,897.7	1,204.4	11,632.1
2025.....	1,671.9	737.0	2,408.9	1,628.5	15,351.3
2030.....	2,093.1	945.0	3,038.2	2,111.5	19,649.5
2035.....	2,629.9	1,203.4	3,833.3	2,636.5	25,028.9
2040.....	3,301.9	1,549.8	4,851.7	3,210.3	32,279.1
2045.....	4,143.3	2,026.9	6,169.3	3,923.3	42,237.7
2050.....	5,204.6	2,669.7	7,874.3	4,868.7	55,676.4
2055.....	6,551.5	3,525.2	10,076.8	6,098.1	73,516.6
2060.....	8,258.3	4,656.3	12,916.5	7,641.0	97,146.9
2065.....	10,407.0	6,163.4	16,570.3	9,556.2	128,541.9
Alternative II-A:					
1989.....	281.1	13.0	294.1	235.7	168.1
1990.....	304.2	18.7	322.9	250.4	240.7
1991.....	322.8	25.0	347.8	265.9	322.6
1992.....	342.1	31.3	373.4	280.1	415.9
1993.....	362.1	37.6	398.8	294.6	521.1
1994.....	383.1	44.1	427.1	309.5	638.8
1995.....	404.6	50.5	455.1	325.0	768.9
1996.....	427.4	57.2	484.6	341.1	912.3
1997.....	450.9	64.6	515.4	358.8	1,069.0
1998.....	475.9	72.7	548.7	377.3	1,240.3
2000.....	532.4	91.1	623.4	417.6	1,634.1
2005.....	702.1	152.0	854.1	543.3	2,963.0
2010.....	910.1	252.5	1,162.5	735.4	4,877.2
2015.....	1,159.7	376.8	1,538.5	1,042.3	7,246.8
2020.....	1,465.2	513.3	1,978.5	1,490.1	9,734.4
2025.....	1,845.6	635.9	2,481.5	2,069.7	11,971.2
2030.....	2,329.2	730.9	3,060.1	2,765.0	13,682.3
2035.....	2,943.9	793.5	3,737.4	3,560.0	14,797.2
2040.....	3,711.9	826.2	4,538.1	4,470.1	15,364.9
2045.....	4,669.1	820.2	5,489.2	5,615.1	15,181.4
2050.....	5,869.3	736.1	6,605.3	7,129.9	13,465.8
2055.....	7,385.7	503.6	7,889.3	9,109.4	8,878.6
2060.....	(¹)	(¹)	(¹)	(¹)	(¹)
Alternative II-B:					
1989.....	261.2	13.1	294.2	235.7	168.3
1990.....	303.3	18.9	322.2	253.2	237.3
1991.....	321.8	25.4	347.2	270.3	314.2
1992.....	342.2	32.2	374.4	287.9	400.7
1993.....	364.8	39.2	404.1	306.4	498.4
1994.....	389.0	46.7	435.6	324.8	609.1
1995.....	414.1	54.2	468.3	343.8	733.6
1996.....	440.7	62.0	502.6	363.9	872.3
1997.....	468.2	70.2	538.4	385.2	1,025.5
1998.....	497.7	79.2	576.9	408.1	1,194.3
2000.....	562.1	98.3	660.4	457.7	1,581.8
2005.....	762.0	161.2	923.2	614.9	2,892.5
2010.....	1,017.4	270.8	1,288.2	857.0	4,815.6
2015.....	1,334.8	408.9	1,743.7	1,249.4	7,196.1
2020.....	1,736.4	549.8	2,286.2	1,638.4	9,575.6
2025.....	2,251.8	658.6	2,910.3	2,632.6	11,355.6
2030.....	2,925.4	699.3	3,624.7	3,629.0	11,929.8
2035.....	3,805.5	643.7	4,449.1	4,821.1	10,832.4
2040.....	4,938.5	467.2	5,405.7	6,241.6	7,641.8
2045.....	6,393.3	120.4	6,513.7	8,071.6	1,446.1
2046.....	(¹)	(¹)	(¹)	(¹)	(¹)
Alternative III:					
1989.....	274.8	12.8	287.7	236.5	161.0
1990.....	291.6	17.8	309.3	256.0	214.3
1991.....	310.9	23.4	334.3	277.4	271.3
1992.....	333.7	29.5	363.2	301.6	332.9
1993.....	348.8	35.1	383.9	326.8	390.0

TABLE F3.—ESTIMATED OPERATIONS OF THE COMBINED OASI AND DI TRUST FUNDS IN CURRENT DOLLARS BY ALTERNATIVE, CALENDAR YEARS 1989-2065 (Cont.)
[In billions]

Calendar year	Income excluding interest	Interest income	Total income	Outgo	Assets at end of year
Alternative III: (Cont.)					
1994.....	\$373.8	\$40.4	\$414.3	\$349.9	\$454.4
1995.....	400.1	45.5	445.6	374.5	525.5
1996.....	428.6	50.4	479.0	400.9	603.6
1997.....	457.7	55.4	513.1	428.6	688.1
1998.....	488.5	60.3	548.8	458.6	778.4
2000.....	555.9	70.3	626.2	519.0	983.8
2005.....	766.6	99.5	866.1	710.6	1,651.7
2010.....	1,042.5	156.4	1,198.9	1,008.2	2,568.5
2015.....	1,390.4	205.9	1,596.4	1,498.8	3,312.5
2020.....	1,833.6	190.8	2,024.4	2,253.3	2,932.1
2025.....	(1)	(1)	(1)	(1)	(1)

¹The combined OASI and DI Trust Funds are estimated to become exhausted during this year.

Table F4 shows estimated income excluding interest and total outgo of the combined OASI and DI Trust Funds, of the HI Trust Fund, and of the combined OASI, DI, and HI Trust Funds, based on the four sets of assumptions I, II-A, II-B, and III described earlier in this report. For OASDI, income excluding interest consists of payroll-tax contributions, proceeds from taxation of benefits, and miscellaneous reimbursements from the general fund of the Treasury. Outgo consists of benefit payments, administrative expenses, net transfers from the trust funds to the Railroad Retirement program, and payments for vocational rehabilitation services for disabled beneficiaries. For HI, income excluding interest consists of contributions (including contributions from railroad employment) and payments from the general fund of the Treasury for contributions on deemed wage credits for military service. Total outgo consists of outlays (benefits and administrative expenses) for insured beneficiaries. Both the HI income and outgo are on an incurred basis. Also, neither income nor outgo for the HI program reflect the effects of the Medicare Catastrophic Coverage Act of 1988.

Table F4 also shows the excess of income excluding interest over outgo, called the balance. The balance approximately reflects the potential impact of trust-fund operations on the Federal budget. Interest income is excluded because it is an intragovernmental transfer within the Federal budget, and therefore does not directly affect the total Federal budget balance. Other types of income, because they are components of total government receipts, have a direct effect on the total budget balance.

TABLE F4.—ESTIMATED OASDI AND HI INCOME EXCLUDING INTEREST, OUTGO, AND BALANCE IN CURRENT DOLLARS BY ALTERNATIVE, CALENDAR YEARS 1989-2060
[In billions]

Cal- endar year	OASDI			HI ¹			TOTAL ¹		
	Income excluding interest	Outgo	Balance	Income excluding interest	Outgo	Balance	Income excluding interest	Outgo	Balance
Alternative I:									
1989	\$282.3	\$235.2	\$47.1	\$69.1	\$59.7	\$9.3	\$351.3	\$294.9	\$56.4
1990	305.5	249.5	56.1	73.5	65.7	7.8	379.1	315.1	63.9
1991	325.5	262.3	63.1	78.4	71.0	7.5	403.9	333.3	70.6
1992	345.4	274.9	70.6	83.2	76.5	6.7	428.7	351.4	77.3
1993	365.7	287.1	78.6	88.0	82.2	5.9	453.7	369.3	84.4

TABLE F4.—ESTIMATED OASDI AND HI INCOME EXCLUDING INTEREST, OUTGO, AND BALANCE IN CURRENT DOLLARS BY ALTERNATIVE,
CALENDAR YEARS 1989-2060 (Cont.)
[In billions]

Cal- endar year	OASDI			HI ¹			TOTAL ¹		
	Income excluding interest	Outgo	Balance	Income excluding interest	Outgo	Balance	Income excluding interest	Outgo	Balance
Alternative III:									
1989	\$274.8	\$236.5	\$38.3	\$67.2	\$59.9	\$7.3	\$342.0	\$296.4	\$45.6
1990	291.5	256.0	35.6	69.9	67.1	2.7	361.4	323.1	38.3
1991	310.9	277.4	33.6	74.9	75.2	-2	385.8	352.6	33.3
1992	333.7	301.6	32.1	80.2	84.4	-4.1	413.9	386.0	27.9
1993	348.7	326.8	21.9	83.8	93.6	-9.7	432.5	420.4	12.1
1994	373.8	349.9	24.0	89.8	104.8	-14.9	463.6	454.6	9.0
1995	400.1	374.5	25.6	96.0	117.4	-21.3	496.0	491.9	4.2
1996	428.6	400.9	27.7	102.7	131.4	-28.6	531.3	532.3	-9
1997	457.7	428.6	29.1	109.7	146.6	-36.7	567.5	575.2	-7.6
1998	488.5	458.6	29.9	117.1	163.0	-45.8	605.5	621.6	-15.9
2000	555.9	519.0	36.9	132.8	201.6	-68.7	688.6	720.6	-31.8
2005	766.6	710.6	55.9	181.9	331.6	-149.6	948.5	1,042.3	-93.7
2010	1,042.5	1,008.2	34.3	246.3	543.3	-296.9	1,288.9	1,551.5	-262.5
2015	1,390.4	1,498.8	-108.3	325.7	866.5	-540.7	1,716.2	2,365.4	-649.1
2020	1,833.6	2,253.3	-419.5	425.8	1,383.3	-957.4	2,259.4	3,636.5	-1,377.0
2025	2,404.5	3,315.5	-910.9	553.5	2,156.7	-1,603.0	2,958.0	5,472.1	-2,514.0
2030	3,148.6	4,716.8	-1,568.1	719.7	3,206.2	-2,496.4	3,868.3	7,923.0	-4,054.6
2035	4,118.9	6,491.1	-2,372.1	936.8	4,505.1	-3,568.1	5,055.7	10,996.1	-5,940.3
2040	5,362.6	8,717.0	-3,354.2	1,215.8	6,023.3	-4,807.4	6,578.4	14,740.3	-8,161.8
2045	6,947.9	11,663.0	-4,715.0	1,570.5	7,882.7	-6,312.1	8,518.4	19,545.7	-11,027.2
2050	8,972.4	15,687.3	-6,714.9	2,020.2	10,241.0	-8,220.7	10,992.5	25,928.3	-14,935.7
2055	11,578.2	21,130.3	-9,552.0	2,595.6	13,304.0	-10,708.3	14,173.8	34,434.3	-20,260.4
2060	14,953.6	28,233.0	-13,279.3	3,340.1	17,336.0	-13,995.9	18,293.6	45,569.0	-27,275.3

¹Effects of the Medicare Catastrophic Coverage Act of 1988 are not reflected.

Table F5 shows estimated income excluding interest, total outgo, and the excess of income excluding interest over total outgo (balance) of the combined OASI and DI Trust Funds, of the HI Trust Fund, and of the combined OASI, DI, and HI Trust Funds, annually for alternatives II-A and II-B.

TABLE F5.—ESTIMATED OASDI AND HI INCOME EXCLUDING INTEREST, OUTGO, AND BALANCE IN CURRENT DOLLARS FOR ALTERNATIVES II-A AND II-B,
CALENDAR YEARS 1989-2063
[In billions]

Cal- endar year	OASDI			HI ¹			TOTAL ¹		
	Income excluding interest	Outgo	Balance	Income excluding interest	Outgo	Balance	Income excluding interest	Outgo	Balance
Alternative II-A:									
1989	\$281.1	\$235.7	\$45.4	\$68.8	\$59.9	\$8.9	\$349.9	\$295.6	\$54.3
1990	304.2	250.4	53.8	73.1	66.5	6.6	377.3	316.9	60.4
1991	322.8	265.9	56.9	77.7	72.7	5.1	400.5	338.6	62.0
1992	342.1	280.1	61.9	82.4	79.2	3.2	424.5	359.4	65.1
1993	362.1	294.6	67.6	87.1	86.3	8	449.3	380.9	68.3
1994	383.1	309.5	73.6	92.1	93.9	-1.7	475.1	403.4	71.7
1995	404.6	325.0	79.6	97.3	102.0	-4.6	501.9	427.0	74.9
1996	427.4	341.1	86.3	102.7	110.6	-7.8	530.1	451.7	78.4
1997	450.9	358.8	92.1	108.4	119.5	-11.0	559.2	478.2	81.0
1998	475.9	377.3	98.6	114.4	129.1	-14.6	590.3	506.4	83.9
1999	503.2	397.0	106.3	120.8	139.6	-18.7	624.0	536.5	87.5
2000	532.4	417.6	114.8	127.6	150.5	-22.8	660.0	568.1	91.9
2001	563.3	439.4	123.9	134.9	161.7	-26.7	698.2	601.1	97.1
2002	595.6	462.4	133.2	142.5	173.7	-31.1	738.1	636.2	102.0
2003	629.5	487.2	142.2	150.5	186.3	-35.8	779.9	673.6	106.4
2004	664.9	514.2	150.6	158.8	199.9	-41.0	823.7	714.2	109.5
2005	702.1	543.3	158.7	167.6	214.0	-46.3	869.7	757.4	112.3
2006	740.8	574.8	166.1	176.8	229.5	-52.6	917.6	804.3	113.3
2007	780.9	608.7	172.1	186.3	246.4	-60.0	967.1	855.1	112.1
2008	822.5	646.4	176.0	196.2	265.3	-69.0	1,018.6	911.7	106.9
2009	865.3	688.8	176.6	206.2	284.5	-78.2	1,071.5	973.2	98.3

Table F6 shows estimated future benefit amounts payable to persons retiring at the normal retirement age and to persons retiring at age 65 for various pre-retirement earnings levels, based on Alternative II-B assumptions. The benefit amount is shown in current dollars, constant dollars (adjusted by the CPI indexing series shown in table F1), and as a percentage of earnings in the year before retirement. The normal retirement age is currently 65, and is scheduled to increase to age 66 during the period 2000-2005 (at a rate of 2 months per year as workers attain age 62), and to age 67 during the period 2017-2022 (also by 2 months per year as workers attain age 62). The pre-retirement earnings levels shown are: low (earnings at 45 percent of the projected SSA average wage index), average (earnings at the amount of the projected SSA average wage index), and maximum (earnings at the amount of the projected SSA contribution and benefit base).

TABLE F6.—ESTIMATED BENEFIT AMOUNT PAYABLE TO RETIRED WORKERS WITH VARIOUS PRE-RETIREMENT EARNINGS LEVELS BASED ON ALTERNATIVE II-B ASSUMPTIONS,
CALENDAR YEARS 1989-2065

Calendar year	CURRENT DOLLARS			CONSTANT DOLLARS ¹			PERCENT OF EARNINGS		
	Low ²	Average	Maximum ³	Low ²	Average	Maximum ³	Low ²	Average	Maximum ³
Normal retirement:									
1989	\$5,016	\$8,022	\$10,795	\$5,016	\$8,022	\$10,795	57.5	41.4	24.0
1990	5,256	8,657	11,712	5,031	8,286	11,210	56.9	42.2	24.4
1995	6,690	11,051	15,352	5,212	8,609	11,959	55.8	41.5	24.6
2000	8,663	14,309	20,628	5,547	9,162	13,208	55.8	41.5	25.4
2005	11,119	18,402	27,454	5,852	9,685	14,448	55.3	41.2	26.1
2010	14,398	23,824	36,594	6,228	10,305	15,829	55.3	41.2	26.8
2015	18,649	30,851	48,302	6,631	10,969	17,173	55.3	41.2	27.3
2020	24,136	39,930	62,792	7,053	11,669	18,350	55.3	41.2	27.4
2025	31,037	51,439	80,760	7,455	12,355	19,398	54.9	41.0	27.2
2030	40,183	66,593	104,592	7,933	13,147	20,648	55.0	41.0	27.3
2035	52,021	86,210	135,356	8,441	13,989	21,963	55.0	41.0	27.3
2040	67,350	111,617	175,260	8,982	14,886	23,374	55.0	41.0	27.3
2045	87,200	144,506	226,914	9,559	15,841	24,874	55.0	41.0	27.3
2050	112,888	187,076	293,772	10,171	16,855	26,469	55.0	41.0	27.3
2055	146,149	242,198	380,310	10,823	17,936	28,164	55.0	41.0	27.3
2060	189,210	313,556	492,313	11,517	19,086	29,966	55.0	41.0	27.3
2065	244,952	405,937	637,297	12,255	20,309	31,883	55.0	41.0	27.3
Age-65 retirement:									
1989	5,016	8,022	10,795	5,016	8,022	10,795	57.5	41.4	24.0
1990	5,256	8,657	11,712	5,031	8,286	11,210	56.9	42.2	24.4
1995	6,690	11,051	15,352	5,212	8,609	11,959	55.8	41.5	24.6
2000	8,663	14,309	20,628	5,547	9,162	13,208	55.8	41.5	25.4
2005	10,840	17,903	26,758	5,705	9,422	14,082	53.9	40.1	25.4
2010	13,550	22,382	34,440	5,861	9,682	14,898	52.1	38.7	25.2
2015	17,542	26,980	45,450	6,237	10,304	16,159	52.1	38.7	25.7
2020	22,439	37,068	58,388	6,557	10,832	17,063	51.4	38.2	25.5
2025	27,306	45,102	71,089	6,559	10,833	17,075	48.3	35.9	24.0
2030	35,354	58,396	92,070	6,980	11,528	18,176	48.3	35.9	24.0
2035	45,769	75,593	119,149	7,427	12,266	19,334	48.3	35.9	24.0
2040	59,254	97,867	154,279	7,903	13,052	20,576	48.3	35.9	24.0
2045	76,720	126,710	199,748	8,410	13,890	21,896	48.4	35.9	24.0
2050	99,320	164,038	258,601	8,949	14,780	23,300	48.4	35.9	24.0
2055	128,578	212,365	334,760	9,522	15,727	24,791	48.4	35.9	24.0
2060	166,466	274,938	433,358	10,132	16,735	26,378	48.4	35.9	24.0
2065	215,504	355,940	560,974	10,781	17,807	28,065	48.4	35.9	24.0

¹The adjustment from current to constant dollars is by the CPI indexing series shown in table F1.

²Earnings equal to 45 percent of average.

³Earnings equal to the SSA contribution and benefit base.

APPENDIX G.—LONG-RANGE ESTIMATES OF SOCIAL SECURITY TRUST FUND OPERATIONS AS A PERCENTAGE OF THE GROSS NATIONAL PRODUCT

This appendix presents long-range projections of the operations of the combined Old-Age and Survivors Insurance and Disability Insurance (OASI and DI) trust funds and of the Hospital Insurance (HI) Trust Fund expressed as a percentage of the gross national product (GNP). While expressing these fund operations as a percentage of taxable payroll is the most useful approach for assessing the financial status of the programs, (see table 26 and Appendix E), analyzing them as a percentage of GNP provides an additional perspective on these fund operations in relation to the total value of goods and services produced by the U.S. economy.

Table G1 shows estimated income excluding interest, total outgo, and the resulting balance of the combined OASI and DI Trust Funds, of the HI Trust Fund, and of the combined OASI, DI, and HI Trust Funds, expressed as percentages of GNP on the basis of each of the four alternative sets of assumptions. The estimated GNP on which these percentages are based is also shown in Table G1. For OASDI, income excluding interest consists of payroll-tax contributions, proceeds from taxation of benefits, and various reimbursements from the general fund of the Treasury. Total outgo consists of benefit payments, administrative expenses, net transfers from the Trust Funds to the Railroad Retirement program, and payments for vocational rehabilitation services for disabled beneficiaries. For HI, income excluding interest consists of contributions (including contributions from railroad employment) and payments from the general fund of the Treasury for contributions on deemed wage credits for military service. Total outgo consists of outlays (benefits and administrative expenses) for insured beneficiaries. Both the HI income and outgo are on an incurred basis. Also, neither income nor outgo for the HI program reflect the effects of the Medicare Catastrophic Coverage Act of 1988.

For the next 15 years, the OASDI balance (income excluding interest less outgo) as a percentage of GNP is projected to increase on the basis of alternatives I, II-A, and II-B, and to decline and then stabilize on the basis of alternative III. The projected HI balance as a percentage of GNP, however, decreases through 2005 under all four alternatives. The combined OASDI and HI balance as a percentage of GNP is projected, for the next 15 years, to increase under alternative I, to decline slightly under alternative II-A, to decline under alternative II-B, and to decline substantially under alternative III. Between 2005 and about 2035, under all four alternatives, both the OASDI and HI balances as percentages of GNP are projected to decline substantially because of the baby-boom generation reaching retirement age. By 2035, balances are projected to become permanently negative in each case except for the OASDI program under alternative I. After 2035, both the HI and OASDI balances as percentages of GNP are projected to change slightly or to stabilize, except for OASDI under alternative III, for which the balance as a percentage of GNP is projected to continue decreasing.

The combined OASDI and HI balances as percentages of GNP, based on the four alternatives, differ by a relatively large amount around the

end of the long-range period (about 9.0 percentage points between alternatives I and III in 2060), while differing by a much smaller amount at the end of the medium-range period (3.6 percentage points in 2015). In addition, the long-range balance as a percentage of GNP varies by a relatively large amount (from 0.66 percent, based on alternative I, to -4.09 percent, based on alternative III), while the medium-range balance varies by a smaller amount (from 1.60 to -0.18 percent). Summarized rates are calculated on the level-financing basis including the trust fund balances on January 1, 1989. (See section 5 for explanation.)

TABLE G1.—ESTIMATED OASDI AND HI INCOME EXCLUDING INTEREST, OUTGO, AND BALANCE AS A PERCENTAGE OF GNP BY ALTERNATIVE, CALENDAR YEARS 1989-2063

Calendar year	Percentage of GNP									
	OASDI			HI ¹			TOTAL ¹			
	Income excluding interest	Outgo	Balance	Income excluding interest	Outgo	Balance	Income excluding interest	Outgo	Balance	GNP in dollars
Alternative I:										
1989	5.39	4.49	0.90	1.32	1.14	0.18	6.71	5.63	1.08	\$5,234
1990	5.47	4.47	1.00	1.32	1.18	.14	6.79	5.64	1.14	5,584
1991	5.47	4.41	1.06	1.32	1.19	.13	6.79	5.61	1.19	5,946
1992	5.48	4.36	1.12	1.32	1.21	.11	6.80	5.58	1.23	6,301
1993	5.49	4.31	1.18	1.32	1.23	.09	6.82	5.55	1.27	6,657
1994	5.50	4.26	1.24	1.32	1.25	.07	6.83	5.52	1.31	7,015
1995	5.51	4.21	1.30	1.33	1.27	.06	6.83	5.47	1.36	7,384
1996	5.51	4.16	1.35	1.33	1.28	.05	6.84	5.44	1.39	7,758
1997	5.51	4.12	1.39	1.33	1.29	.03	6.83	5.41	1.42	8,146
1998	5.51	4.09	1.42	1.33	1.30	.03	6.83	5.39	1.45	8,548
2000	5.53	4.03	1.50	1.33	1.32	.01	6.86	5.35	1.51	9,445
2005	5.58	3.93	1.64	1.34	1.33	.00	6.92	5.27	1.65	12,114
2010	5.61	4.09	1.53	1.34	1.35	-.01	6.96	5.44	1.52	15,298
2015	5.65	4.53	1.12	1.34	1.35	-.01	6.99	5.88	1.11	19,059
2020	5.68	5.10	.58	1.34	1.39	-.05	7.02	6.49	.53	23,621
2025	5.71	5.56	.15	1.34	1.47	-.13	7.05	7.03	.02	29,302
2030	5.72	5.77	-.05	1.34	1.55	-.21	7.06	7.32	-.26	36,587
2035	5.72	5.74	-.01	1.34	1.60	-.26	7.07	7.34	-.28	45,943
2040	5.72	5.56	.16	1.34	1.64	-.30	7.06	7.20	-.14	57,729
2045	5.71	5.41	.30	1.34	1.66	-.32	7.06	7.08	-.02	72,501
2050	5.71	5.34	.37	1.34	1.68	-.34	7.05	7.03	.03	91,093
2055	5.71	5.32	.40	1.34	1.70	-.36	7.05	7.02	.04	114,663
2060	5.71	5.29	.43	1.34	1.72	-.38	7.05	7.01	.05	144,539
Summarized rates:²										
25-year: 1989-2013	5.65	4.16	1.49	1.40	1.29	.11	7.05	5.45	1.60	---
50-year: 1989-2038	5.68	4.73	.95	1.37	1.38	-.01	7.05	6.11	.94	---
75-year: 1989-2063	5.69	4.92	.77	1.36	1.47	-.11	7.05	6.39	.66	---
Alternative II-A:										
1989	5.40	4.53	.87	1.32	1.15	.17	6.72	5.68	1.04	5,204
1990	5.48	4.51	.97	1.32	1.20	.12	6.79	5.71	1.09	5,555
1991	5.48	4.51	.97	1.32	1.23	.09	6.80	5.74	1.05	5,894
1992	5.48	4.49	.99	1.32	1.27	.05	6.80	5.76	1.04	6,238
1993	5.49	4.46	1.02	1.32	1.31	.01	6.81	5.77	1.04	6,601
1994	5.49	4.43	1.05	1.32	1.35	-.03	6.81	5.78	1.03	6,982
1995	5.48	4.41	1.08	1.32	1.38	-.06	6.80	5.79	1.02	7,378
1996	5.49	4.38	1.11	1.32	1.42	-.10	6.80	5.80	1.01	7,793
1997	5.48	4.36	1.12	1.32	1.45	-.13	6.79	5.81	.98	8,232
1998	5.48	4.34	1.13	1.32	1.49	-.17	6.79	5.83	.97	8,689
2000	5.50	4.31	1.18	1.32	1.55	-.24	6.81	5.86	.95	9,687
2005	5.52	4.27	1.25	1.32	1.68	-.37	6.84	5.96	.88	12,711
2010	5.54	4.47	1.06	1.32	1.84	-.52	6.85	6.31	.54	16,435
2015	5.55	4.99	.56	1.31	2.00	-.69	6.86	6.98	-.12	20,900
2020	5.56	5.65	-.09	1.30	2.23	-.93	6.86	7.89	-.02	26,353
2025	5.57	6.24	-.68	1.30	2.51	-.121	6.86	8.75	-.188	33,155
2030	5.56	6.60	-1.04	1.29	2.74	-.145	6.86	9.35	-.249	41,865
2035	5.55	6.71	-1.16	1.29	2.89	-.160	6.83	9.60	-.277	53,060
2040	5.52	6.65	-1.13	1.28	2.96	-.168	6.80	9.61	-.281	67,197
2045	5.50	6.61	-1.11	1.27	2.99	-.171	6.77	9.60	-.283	84,905
2050	5.48	6.65	-1.18	1.27	3.00	-.174	6.75	9.66	-.291	107,143
2055	5.46	6.73	-1.27	1.26	3.02	-.176	6.72	9.75	-.303	135,306
2060	5.44	6.77	-1.34	1.26	3.04	-.179	6.69	9.82	-.313	171,113
Summarized rates:²										
25-year: 1989-2013	5.62	4.42	1.19	1.39	1.55	-.16	7.00	5.97	1.03	---
50-year: 1989-2038	5.59	5.19	.40	1.35	1.98	-.63	6.94	7.17	-.23	---
75-year: 1989-2063	5.56	5.60	-.04	1.33	2.26	-.94	6.89	7.87	-.98	---

TABLE G1.—ESTIMATED OASDI AND HI INCOME EXCLUDING INTEREST, OUTGO, AND BALANCE AS A PERCENTAGE OF GNP BY ALTERNATIVE, CALENDAR YEARS 1989-2063 (Cont.)

Calendar year	Percentage of GNP								GNP in dollars	
	OASDI			HI ¹			TOTAL ¹			
	Income excluding interest	Outgo	Balance	Income excluding interest	Outgo	Balance	Income excluding interest	Outgo	Balance	
Alternative II-B:										
1989	5.41	4.53	0.87	1.32	1.15	0.17	6.73	5.69	1.04	\$5,200
1990	5.49	4.58	.91	1.32	1.21	.11	6.80	5.79	1.02	5,530
1991	5.47	4.59	.88	1.32	1.25	.07	6.79	5.84	.95	5,884
1992	5.46	4.60	.87	1.32	1.29	.03	6.78	5.88	.89	6,264
1993	5.46	4.58	.87	1.31	1.33	-.01	6.77	5.91	.86	6,684
1994	5.46	4.56	.90	1.31	1.37	-.06	6.77	5.93	.85	7,123
1995	5.46	4.53	.93	1.31	1.41	-.09	6.77	5.94	.83	7,581
1996	5.46	4.51	.95	1.31	1.45	-.13	6.78	5.96	.82	8,066
1997	5.46	4.49	.97	1.31	1.48	-.17	6.77	5.97	.79	8,581
1998	5.45	4.47	.98	1.31	1.52	-.21	6.77	5.99	.77	9,124
2000	5.46	4.45	1.01	1.31	1.60	-.29	6.77	6.04	.73	10,281
2005	5.47	4.41	1.06	1.30	1.74	-.44	6.77	6.15	.62	13,936
2010	5.46	4.60	.86	1.30	1.91	-.61	6.75	6.50	.25	18,640
2015	5.45	5.10	.35	1.28	2.07	-.79	6.73	7.17	-.44	24,515
2020	5.43	5.75	-.32	1.27	2.31	-.104	6.70	8.06	-.15	31,971
2025	5.41	6.33	-.92	1.26	2.57	-.132	6.67	8.90	-.23	41,596
2030	5.39	6.68	-.130	1.25	2.80	-.155	6.63	9.48	-.24	54,316
2035	5.35	6.77	-.143	1.23	2.93	-.169	6.58	9.70	-.32	71,185
2040	5.30	6.69	-.140	1.22	2.98	-.175	6.52	9.67	-.35	93,233
2045	5.25	6.63	-.138	1.21	2.99	-.178	6.46	9.61	-.35	121,832
2050	5.20	6.63	-.143	1.20	2.99	-.179	6.40	9.62	-.32	158,985
2055	5.16	6.67	-.151	1.19	2.99	-.180	6.35	9.66	-.32	207,639
2060	5.11	6.68	-.157	1.18	3.00	-.182	6.29	9.68	-.39	271,546
Summarized rates:²										
25-year: 1989-2013	5.58	4.54	1.03	1.38	1.59	-.21	6.95	6.13	.82	---
50-year: 1989-2038	5.50	5.31	.19	1.32	2.04	-.72	6.82	7.35	-.53	---
75-year: 1989-2063	5.41	5.71	-.29	1.29	2.32	-.103	6.70	8.02	-.12	---
Alternative III:										
1989	5.43	4.67	.76	1.33	1.18	.14	6.75	5.85	.90	5,066
1990	5.44	4.78	.66	1.30	1.25	.05	6.75	6.03	.72	5,358
1991	5.38	4.80	.58	1.30	1.30	-.01	6.68	6.10	.58	5,779
1992	5.40	4.88	.52	1.30	1.37	-.07	6.70	6.25	.45	6,178
1993	5.42	5.08	.34	1.30	1.45	-.15	6.72	6.53	.19	6,435
1994	5.38	5.03	.34	1.29	1.51	-.22	6.67	6.54	.13	6,954
1995	5.37	5.03	.34	1.29	1.58	-.29	6.66	6.61	.06	7,444
1996	5.38	5.04	.35	1.29	1.65	-.36	6.67	6.69	-.01	7,960
1997	5.39	5.05	.34	1.29	1.73	-.43	6.68	6.77	-.09	8,494
1998	5.39	5.06	.33	1.29	1.80	-.51	6.69	6.86	-.18	9,057
2000	5.40	5.04	.36	1.29	1.96	-.67	6.69	7.00	-.31	10,295
2005	5.39	4.99	.39	1.28	2.33	-.105	6.67	7.33	-.66	14,229
2010	5.36	5.18	.18	1.27	2.79	-.153	6.62	7.97	-.15	19,456
2015	5.33	5.74	-.42	1.25	3.32	-.207	6.57	9.06	-.24	26,108
2020	5.30	6.51	-.121	1.23	3.99	-.277	6.52	10.50	-.38	34,628
2025	5.26	7.26	-.199	1.21	4.72	-.351	6.48	11.98	-.55	45,680
2030	5.23	7.83	-.260	1.19	5.32	-.413	6.42	13.15	-.67	60,256
2035	5.18	8.16	-.298	1.18	5.66	-.448	6.35	13.82	-.74	79,579
2040	5.12	8.32	-.320	1.16	5.75	-.459	6.28	14.07	-.79	104,781
2045	5.06	8.49	-.343	1.14	5.74	-.460	6.20	14.24	-.83	137,306
2050	5.01	8.76	-.375	1.13	5.72	-.459	6.13	14.47	-.84	179,180
2055	4.96	9.05	-.409	1.11	5.70	-.459	6.07	14.74	-.87	233,552
2060	4.90	9.26	-.436	1.10	5.69	-.459	6.00	14.95	-.89	304,882
Summarized rates:³										
25-year: 1989-2013	5.51	5.04	.47	1.36	2.01	-.65	6.88	7.06	-.18	---
50-year: 1989-2038	5.40	6.01	-.61	1.29	3.21	-.192	6.69	9.23	-2.53	---
75-year: 1989-2063	5.30	6.76	-.146	1.25	3.88	-.263	6.55	10.64	-4.09	---

¹Effects of the Medicare Catastrophic Coverage Act of 1988 are not reflected in this table.²Summarized rates are calculated on the level-financing basis including the value of the trust funds on January 1, 1989. (See section 5 for explanation.)

The difference between trust fund operations expressed as percentages of taxable payroll and those expressed as percentages of GNP can be seen by analyzing the estimated ratios of taxable payroll to GNP, which are presented in table G2. The cost as a percentage of GNP is approximately equal to the cost as a percentage of taxable payroll multiplied by the ratio of taxable payroll to GNP.

Projections of GNP for the first several years were based on assumed quarterly changes in real GNP and the GNP price deflator. Thereafter, projections of GNP were based on the projected increases in U.S. employment and labor productivity. Productivity projections are consistent with assumed changes in the level of average earnings, the ratio of earnings to worker compensation, the ratio of worker compensation to GNP, and average hours worked per year (see Appendix A).

Projections of taxable payroll, which are described in detail in Appendix A, were based on the projected increases in covered employment and average taxable earnings. Therefore, the projected increases in taxable payroll differ from projected increases in GNP primarily to the extent that average taxable earnings are assumed to increase more slowly than is productivity and to the extent that coverage of U.S. employment changes.

TABLE G2.—RATIO OF TAXABLE PAYROLL TO GNP BY ALTERNATIVE,
CALENDAR YEARS 1989-2060

Calendar year	I	II-A	II-B	III
1989.....	0.436	0.437	0.437	0.438
1990.....	.435	.435	.435	.431
1991.....	.436	.436	.436	.429
1992.....	.437	.437	.435	.429
1993.....	.437	.437	.434	.430
1994.....	.438	.436	.434	.427
1995.....	.438	.436	.434	.427
1996.....	.438	.436	.434	.427
1997.....	.438	.436	.434	.428
1998.....	.438	.436	.434	.428
2000.....	.439	.436	.433	.427
2005.....	.441	.436	.431	.423
2010.....	.442	.434	.427	.418
2015.....	.442	.433	.424	.412
2020.....	.442	.431	.420	.406
2025.....	.442	.429	.416	.400
2030.....	.442	.427	.412	.395
2035.....	.442	.425	.408	.389
2040.....	.442	.422	.404	.384
2045.....	.442	.420	.400	.378
2050.....	.442	.418	.396	.373
2055.....	.442	.416	.392	.367
2060.....	.442	.414	.389	.362

The long-range trend in the ratio of taxable payroll to GNP reflects the assumed trend in the ratio of wages to total employee compensation—i.e., wages plus fringe benefits. The ratio of wages to total employee compensation declined at average annual rates of 0.34 percent for the 30 years 1958-87, and 0.29, 0.65, and 0.08 percent for the 10-year periods 1958-67, 1968-77, and 1978-87, respectively. This ratio is assumed to stop its historical decline for alternative I, but to continue to decline ultimately by about 0.1, 0.2, and 0.3 percent per year for alternatives II-A, II-B, and III, respectively.

Through 2015, however, the tendency toward decreases in the ratio of taxable payroll to GNP, discussed above, is at least partially offset by the gradually expanding OASDI coverage of Federal civilian employment resulting from the 1983 amendments. The ratio is projected to decrease slightly in 1990 for each alternative. For alternative I, the ratio of taxable payroll to GNP is projected to rise slightly between 1990 and 2010, thereafter remaining about the same. For alternative II-A, the ratio is projected to stay about the same from 1990 through 2005 before

beginning to decrease. For alternatives II-B and III, the ratio of taxable payroll to GNP is projected to remain about the same until the year 2000, and then to decrease for the remainder of the long-range period.

Table G3 presents estimates of income excluding interest, outgo, and balance expressed as a percentage of GNP for the OASI and DI Trust Funds, the HI Trust Fund, and the combined OASI, DI, and HI Trust Funds, as well as the actual dollar amount of GNP, for single calendar years based on assumption sets II-A and II-B.

TABLE G3.—ESTIMATED OASDI AND HI INCOME EXCLUDING INTEREST, OUTGO, AND BALANCE AS A PERCENTAGE OF GNP FOR ALTERNATIVES II-A AND II-B, CALENDAR YEARS 1989-2063

Calendar year	Percentage of GNP									GNP in dollars	
	OASDI			HI ¹			TOTAL ²				
	Income excluding interest	Outgo	Balance	Income excluding interest	Outgo	Balance	Income excluding interest	Outgo	Balance		
Alternative II-A:											
1989.....	5.40	4.53	0.87	1.32	1.15	0.17	6.72	5.68	1.04	\$5,204	
1990.....	5.48	4.51	.97	1.32	1.20	.12	6.79	5.71	1.09	5,555	
1991.....	5.48	4.51	.97	1.32	1.23	.09	6.80	5.74	1.05	5,894	
1992.....	5.48	4.49	.99	1.32	1.27	.05	6.80	5.76	1.04	6,238	
1993.....	5.49	4.46	1.02	1.32	1.31	.01	6.81	5.77	1.04	6,601	
1994.....	5.49	4.43	1.05	1.32	1.35	-.03	6.81	5.78	1.03	6,982	
1995.....	5.48	4.41	1.08	1.32	1.38	-.06	6.80	5.79	1.02	7,378	
1996.....	5.48	4.38	1.11	1.32	1.42	-.10	6.80	5.80	1.01	7,793	
1997.....	5.48	4.36	1.12	1.32	1.45	-.13	6.79	5.81	.98	8,232	
1998.....	5.48	4.34	1.13	1.32	1.49	-.17	6.79	5.83	.97	8,689	
1999.....	5.49	4.33	1.16	1.32	1.52	-.20	6.81	5.85	.95	9,167	
2000.....	5.50	4.31	1.18	1.32	1.55	-.24	6.81	5.86	.95	9,687	
2001.....	5.50	4.29	1.21	1.32	1.58	-.26	6.82	5.87	.95	10,236	
2002.....	5.51	4.28	1.23	1.32	1.61	-.29	6.83	5.88	.94	10,812	
2003.....	5.51	4.27	1.25	1.32	1.63	-.31	6.83	5.90	.93	11,415	
2004.....	5.52	4.27	1.25	1.32	1.66	-.34	6.84	5.93	.91	12,046	
2005.....	5.52	4.27	1.25	1.32	1.68	-.37	6.84	5.96	.88	12,711	
2006.....	5.53	4.29	1.24	1.32	1.71	-.39	6.85	6.00	.85	13,403	
2007.....	5.53	4.31	1.22	1.32	1.74	-.43	6.85	6.06	.79	14,120	
2008.....	5.53	4.35	1.18	1.32	1.78	-.47	6.85	6.13	.72	14,864	
2009.....	5.54	4.41	1.13	1.32	1.82	-.50	6.85	6.23	.63	15,633	
2010.....	5.54	4.47	1.06	1.32	1.84	-.52	6.85	6.31	.54	16,435	
2011.....	5.54	4.55	.99	1.32	1.86	-.54	6.86	6.41	.45	17,263	
2012.....	5.54	4.65	.89	1.31	1.89	-.57	6.86	6.54	.32	18,113	
2013.....	5.55	4.75	.79	1.31	1.92	-.61	6.86	6.67	.18	19,006	
2014.....	5.55	4.87	.68	1.31	1.96	-.65	6.86	6.83	.03	19,933	
2015.....	5.55	4.99	.56	1.31	2.00	-.69	6.86	6.98	-.12	20,900	
2016.....	5.55	5.12	.43	1.31	2.04	-.73	6.86	7.15	-.29	21,899	
2017.....	5.55	5.25	.30	1.31	2.08	-.78	6.86	7.34	-.47	22,942	
2018.....	5.56	5.39	.17	1.31	2.13	-.83	6.86	7.52	-.66	24,028	
2019.....	5.56	5.52	.04	1.31	2.18	-.88	6.86	7.71	-.84	25,165	
2020.....	5.56	5.65	-.09	1.30	2.23	-.93	6.86	7.89	-.102	26,353	
2021.....	5.56	5.78	-.22	1.30	2.29	-.98	6.87	8.07	-.121	27,591	
2022.....	5.56	5.91	-.34	1.30	2.34	-.104	6.87	8.25	-.138	28,887	
2023.....	5.56	6.03	-.46	1.30	2.40	-.110	6.87	8.43	-.156	30,243	
2024.....	5.57	6.14	-.57	1.30	2.45	-.115	6.87	8.59	-.173	31,664	
2025.....	5.57	6.24	-.68	1.30	2.51	-.121	6.86	8.75	-.188	33,155	
2026.....	5.57	6.34	-.77	1.30	2.56	-.126	6.86	8.90	-.204	34,715	
2027.....	5.57	6.42	-.86	1.30	2.61	-.131	6.86	9.03	-.217	36,371	
2028.....	5.57	6.50	-.93	1.29	2.66	-.136	6.86	9.15	-.229	38,110	
2029.....	5.57	6.56	-.99	1.29	2.70	-.141	6.86	9.26	-.240	39,942	
2030.....	5.56	6.60	-1.04	1.29	2.74	-.145	6.86	9.35	-.249	41,865	
2031.....	5.56	6.64	-1.08	1.29	2.78	-.149	6.85	9.42	-.257	43,889	
2032.....	5.56	6.67	-1.12	1.29	2.81	-.152	6.85	9.48	-.263	46,024	
2033.....	5.56	6.70	-1.14	1.29	2.84	-.155	6.84	9.53	-.269	48,265	
2034.....	5.55	6.71	-1.16	1.29	2.86	-.158	6.84	9.57	-.273	50,611	
2035.....	5.55	6.71	-1.16	1.29	2.89	-.160	6.83	9.60	-.277	53,060	
2036.....	5.54	6.71	-1.16	1.28	2.91	-.163	6.83	9.62	-.279	55,622	
2037.....	5.54	6.70	-1.16	1.28	2.93	-.165	6.82	9.63	-.280	58,313	
2038.....	5.53	6.68	-1.15	1.28	2.94	-.166	6.82	9.62	-.281	61,144	
2039.....	5.53	6.67	-1.14	1.28	2.95	-.167	6.81	9.62	-.281	64,110	

TABLE G3.—ESTIMATED OASDI AND HI INCOME EXCLUDING INTEREST, OUTGO, AND BALANCE AS A PERCENTAGE OF GNP FOR ALTERNATIVES II-A AND II-B, CALENDAR YEARS 1989-2063 (Cont.)

Calendar year	Percentage of GNP									GNP in dollars	
	OASDI			HI ¹			TOTAL ¹				
	Income excluding interest	Outgo	Balance	Income excluding interest	Outgo	Balance	Income excluding interest	Outgo	Balance		
Alternative II-B:											
(Cont.)											
2030.....	5.39	6.68	-1.30	1.25	2.80	-1.55	6.63	9.48	-2.84	\$54,316	
2031.....	5.38	6.72	-1.34	1.24	2.83	-1.58	6.62	9.55	-2.92	57,323	
2032.....	5.37	6.75	-1.38	1.24	2.86	-1.61	6.61	9.60	-2.99	60,516	
2033.....	5.36	6.77	-1.40	1.24	2.88	-1.64	6.60	9.65	-3.04	63,889	
2034.....	5.35	6.77	-1.42	1.24	2.90	-1.67	6.59	9.68	-3.09	67,446	
2035.....	5.35	6.77	-1.43	1.23	2.93	-1.69	6.58	9.70	-3.12	71,185	
2036.....	5.34	6.77	-1.43	1.23	2.95	-1.71	6.57	9.71	-3.14	75,126	
2037.....	5.33	6.75	-1.42	1.23	2.96	-1.73	6.56	9.71	-3.15	79,291	
2038.....	5.32	6.73	-1.42	1.23	2.97	-1.74	6.54	9.70	-3.15	83,701	
2039.....	5.31	6.71	-1.41	1.23	2.97	-1.75	6.53	9.69	-3.15	88,352	
2040.....	5.30	6.69	-1.40	1.22	2.98	-1.75	6.52	9.67	-3.15	93,233	
2041.....	5.29	6.68	-1.39	1.22	2.98	-1.76	6.51	9.66	-3.15	98,371	
2042.....	5.28	6.66	-1.38	1.22	2.98	-1.76	6.49	9.64	-3.15	103,784	
2043.....	5.27	6.64	-1.38	1.22	2.98	-1.77	6.48	9.63	-3.15	109,488	
2044.....	5.26	6.63	-1.38	1.21	2.98	-1.77	6.47	9.62	-3.15	115,505	
2045.....	5.25	6.63	-1.38	1.21	2.99	-1.78	6.46	9.61	-3.15	121,832	
2046.....	5.24	6.62	-1.38	1.21	2.99	-1.78	6.45	9.61	-3.16	128,502	
2047.....	5.23	6.62	-1.39	1.21	2.99	-1.78	6.44	9.61	-3.17	135,535	
2048.....	5.22	6.62	-1.40	1.20	2.99	-1.78	6.42	9.61	-3.18	142,939	
2049.....	5.21	6.62	-1.41	1.20	2.99	-1.79	6.41	9.61	-3.20	150,751	
2050.....	5.20	6.63	-1.43	1.20	2.99	-1.79	6.40	9.62	-3.22	158,985	
2051.....	5.19	6.64	-1.45	1.20	2.99	-1.79	6.39	9.63	-3.24	167,670	
2052.....	5.18	6.65	-1.46	1.19	2.99	-1.79	6.38	9.64	-3.26	176,858	
2053.....	5.18	6.66	-1.48	1.19	2.99	-1.80	6.37	9.65	-3.28	186,561	
2054.....	5.17	6.66	-1.50	1.19	2.99	-1.80	6.36	9.65	-3.30	196,808	
2055.....	5.16	6.67	-1.51	1.19	2.99	-1.80	6.35	9.66	-3.32	207,639	
2056.....	5.15	6.68	-1.53	1.19	2.99	-1.81	6.34	9.67	-3.34	219,075	
2057.....	5.14	6.68	-1.54	1.18	3.00	-1.81	6.32	9.68	-3.35	231,145	
2058.....	5.13	6.68	-1.55	1.18	3.00	-1.82	6.31	9.68	-3.37	243,891	
2059.....	5.12	6.68	-1.56	1.18	3.00	-1.82	6.30	9.68	-3.38	257,332	
2060.....	5.11	6.68	-1.57	1.18	3.00	-1.82	6.29	9.68	-3.39	271,546	
2061.....	5.10	6.68	-1.57	1.17	3.00	-1.83	6.28	9.68	-3.40	286,532	
2062.....	5.10	6.67	-1.58	1.17	3.01	-1.83	6.27	9.68	-3.41	302,349	
2063.....	5.09	6.67	-1.58	1.17	3.01	-1.84	6.26	9.68	-3.42	319,044	

¹Effects of the Medicare Catastrophic Coverage Act of 1988 are not reflected in this table.

APPENDIX H.—STATEMENT OF ACTUARIAL OPINION

It is my opinion that (1) subject to the qualification described below, the underlying techniques and methodology used herein to evaluate the financial and actuarial status of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds are generally accepted within the actuarial profession; and (2) the assumptions used and the resulting actuarial estimates are, in the aggregate, reasonable for the purpose of evaluating the financial and actuarial status of the trust funds, taking into consideration the experience and expectations of the program.

The decision of the Board of Trustees, as stated herein, to eliminate the explicit test of "close actuarial balance" should, in my opinion, be reconsidered. A specific criterion for assessing the adequacy of long-range program financing is desirable in order to satisfy the "statement of the actuarial status of the Trust Funds" that is required by law. The test of close actuarial balance is one such criterion and, in fact, has been included in each annual report since the late 1950's. This test has had a positive influence in maintaining the actuarial balance of the OASDI program, or restoring actuarial balance when required. In addition, this test is generally accepted within the actuarial profession as a valid criterion for use in evaluating the actuarial status of the OASDI program. Although "close actuarial balance" cannot characterize all aspects of the actuarial status of the program, in my professional opinion, it should continue to be used as the primary test of the long-range actuarial soundness of the program. For these reasons, I am qualifying my certification statement for this annual report.

It is important to note that the above qualification refers only to the elimination from this report of "close actuarial balance" as a summarizing concept of the long-range financial status of the program. The projections of annual income and expenditures and all other tests presented in this report are, in my opinion, reasonable for the purpose stated.


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