EXPECTED OPERATIONS AND STATUS OF THE TRUST FUND DURING THE PERIOD OCTOBER 1, 1987 TO DECEMBER 31, 1990

The expected operations of the trust fund during fiscal years 1988-90 are shown in table 5, together with the past experience of the program. The projection shown in table 5 — and the entirety of this section -- is based on two intermediate sets of projection assumptions labeled "Alternative II-A" and "Alternative II-B," which are presented in detail in appendix A.

Income received through the financial interchange between the railroad retirement account and the trust fund under the provisions of the Railroad Retirement Act is estimated on the same basis as income from hospital insurance contributions. Estimates of the corresponding outgo are included in the disbursement items.

Estimated income to the trust fund which is appropriated from general revenues to reimburse the program for the cost of coverage of noninsured persons is the same as the estimates of disbursements for such persons, net of corrections for differences between costs and amounts transferred for previous years. Premium income and disbursements for other noninsured persons over age 65 who may enroll in the hospital insurance program on a voluntary basis are based on an estimated enrollment of 18,000 in fiscal year 1988.

The transfers from general revenues for military wage credits are based on provisions of the Social Security Amendments of 1983 (Public Law 98-21), as described in the "Nature of the Trust Fund" section.

The investment of new assets received during fiscal years 1988-90 is assumed to be in the form of special public-debt obligations bearing interest rates ranging from 8.375 percent to 9.125 percent, payable semiannually. The average effective annual rate of interest on the assets held by the hospital insurance trust fund on September 30, 1987, was 9.8 percent.

Disbursements for benefits are projected to increase in fiscal years 1988-90, primarily as a result of the increase in hospital payment rates and hospital admissions under the program. The expenditures for benefit payments shown in table 5 differ from those shown in the 1989 Federal Budget. These estimates are based on more recent demographic and economic projections, and they do not reflect the implementation of proposed changes in regulations which were included in the budget. The expenditures for benefit payments shown in this section are based on the assumption that for fiscal years 1989 and later, the prospective payment rates will be increased in accordance with Public Law 100-203, the Omnibus Reconciliation Act of 1987, as described in the "Social Security Amendments Since the 1987 Report" section.

The actual operations of the hospital insurance program are organized, in general, on a calendar year basis. Earnings subject to taxation and the applicable tax rates are established by calendar year, as are the inpatient hospital deductible and other cost-sharing amounts. The projected operations of the trust fund on a calendar year basis are shown in table 6, according to the same assumptions as used in table 5. A preliminary estimate of the December 1990 lump sum transfer, to be determined in the 1990 quinquennial Military Service Determination, is also included in table 6. The provisions prescribing this transfer are described in the "Nature of the Trust Fund" section. The ratios of assets in the trust fund at the beginning of each calendar year to total disbursements during that year are shown in table 7 for past years and as projected through 1990.

TABLE 5.--OPERATIONS OF THE HOSPITAL INSURANCE TRUST FUND DURING FISCAL YEARS 1967-90
(In millions)

Fiscal year 1/	Income							Disbursements				Trust fund	
	Payroll taxes	Transfers from railroad retirement account	Reimbursement for uninsured persons	Premiums from voluntary enrollees	Payments for military wage credits	Interest on investments and other income 2/	Total income	Benefits payments 3/	Administrative expenses 4/	Total disbursements	Interfund borrowing transfers 5/	Net increase in fund	Fund at end of year
Historical Data:													
1967	$2,689	$16	$327		$11	$46	$3,089	$2,508	$89	$2,597		$492	$1,343
1968	3,514	44	273		11	61	3,902	3,736	79	3,815		88	1,431
1969	4,423	54	749		22	96	5,344	4,654	104	4,758		586	2,017
1970	4,785	64	617		11	137	5,614	4,804	149	4,953		661	2,677
1971	4,898	66	863		11	180	6,018	5,442	150	5,592		426	3,103
1972	5,226	66	503		48	188	6,031	6,108	167	6,276		-245	2,859
1973	7,663	63	381		48	196	8,352	6,648	194	6,842		1,510	4,369
1974	10,602	99	451	$4	48	405	11,610	7,806	259	8,065		3,545	7,914
1975	11,291	132	481	6	48	609	12,568	10,353	259	10,612		1,956	9,870
1976	12,031	138	610	8	48	709	13,544	12,267	312	12,579		966	10,836
T.Q.	3,366	143	0 6/	2	0	5	3,516	3,315	89	3,404		112	10,948
1977	13,649	0 7/	803 6/	11	141	770	15,374	14,906	301	15,207		167	11,115
1978	16,677	214 7/	688	12	143 8/	809	18,543	17,411	451	17,862		681	11,796
1979	19,927	191	734	17	141	901	21,910	19,891	452	20,343		1,567	13,363
1980	23,244	244	697	17	141	1,072	25,415	23,790	497	24,288		1,127	14,490
1981	30,425	276	659	21	141	1,341	32,863	28,907	353	29,260		3,603	18,093
1982	34,390	351	808	25	207	1,829	37,611	34,343	521	34,864		2,747	20,840
1983	36,387	358	878	26	3,663 9/	2,629	43,940	38,102	522	38,624	$-12,437	-7,121	13,719
1984	41,364	351	752	35	250	2,812	45,563	41,476	633	42,108		3,455	17,174
1985	46,490	371	766	38	86	3,182	50,933	47,841	813	48,654	1,824	4,103	21,277
1986	53,020	364	566	40	-714 10/	3,167	56,442	49,018	667	49,685	10,613	17,370	38,648
1987	57,820	368	447	40	94	3,982	62,751	49,967	836	50,803		11,949	50,596
Projection:													
Alternative II-A													
1988	61,622	352	475	47	93	5,167	67,756	51,840	944	52,784		14,972	65,568
1989	65,129	338	515	55	94	6,390	72,521	55,842	1,011	56,853		15,668	81,236
1990	69,392	321	411	58	95	7,721	77,998	62,311	1,097	63,408		14,590	95,826
Alternative II-B													
1988	61,508	352	475	47	93	5,167	67,642	51,832	944	52,776		14,866	65,462
1989	64,773	337	515	55	94	6,404	72,178	55,883	1,010	56,893		15,285	80,747
1990	68,776	319	411	58	95	7,742	77,401	62,448	1,094	63,542		13,859	94,606

1/ Fiscal years 1976 and earlier consist of the 12 months ending on June 30 of each year; the three-month interval from July 1, 1976, through September 30, 1976, labeled "T.Q.," is the transition quarter; fiscal years 1977 and later consist of the 12 months ending on September 30 of each year.
2/ Other income includes recoveries of amounts reimbursed from the trust fund which are not obligations of the trust fund and a small amount of miscellaneous income.
3/ Includes costs of Peer Review Organizations (beginning with the implementation of the Prospective Payment System on October 1, 1983).
4/ Includes costs of experiments and demonstration projects.
5/ A negative amount is a loan to the OASI trust fund; a positive amount is a repayment of loan principal to the HI trust fund.
6/ The 1977 transfer is for benefits and administrative expenses during the five-quarter period covering the transition quarter and fiscal year 1977.
7/ The 1978 transfer is for contributions during the five-quarter period covering the transition quarter and fiscal year 1977.
8/ Includes $2 million in reimbursement from general revenues for costs arising from the granting of deemed wage credits to persons of Japanese ancestry who were interned during World War II.
9/ Includes the lump sum general revenue transfer of $3,456 million, as provided for by section 151 of P.L. 98-21.
10/ Includes the lump sum general revenue adjustment of -$805 million, as provided for by section 151 of P.L. 98-21.

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

TABLE 6.—OPERATIONS OF THE HOSPITAL INSURANCE TRUST FUND DURING CALENDAR YEARS 1966-90
(In millions)

Calendar year	Income							Disbursements				Trust fund	
	Payroll taxes	Transfers from railroad retirement account	Reimbursement for uninsured persons	Premiums from voluntary enrollees	Payments for military wage credits	Interest on investments and other income 1/	Total income	Benefits payments 2/	Administrative expenses 3/	Total disbursements	Interfund borrowing transfers 4/	Net increase in fund	Fund at end of year
Historical Data:													
1966	$1,858	$16	$26		$11	$32	$1,943	$891	$108	$999		$944	$944
1967	3,152	44	301		11	51	3,559	3,353	77	3,430		129	1,073
1968	4,116	54	1,022		22	74	5,287	4,179	99	4,277		1,010	2,083
1969	4,473	64	617		11	113	5,279	4,739	118	4,857		422	2,505
1970	4,881	66	863		11	158	5,979	5,124	157	5,281		698	3,202
1971	4,921	66	503		48	193	5,732	5,751	150	5,900		-168	3,034
1972	5,731	63	381		48	180	6,403	6,318	185	6,503		-99	2,935
1973	9,944	99	451	$2	48	278	10,821	7,057	232	7,289		3,532	6,467
1974	10,844	132	471	5	48	523	12,024	9,099	272	9,372		2,652	9,119
1975	11,502	138	621	7	48	664	12,980	11,315	266	11,581		1,399	10,517
1976	12,727	143	0 5/	9	141	746	13,766	13,340	339	13,679		88	10,605
1977	14,114	0 6/	803 5/	12	143 7/	784	15,856	15,737	283	16,019		-163	10,442
1978	17,324	214 6/	688	13	141	834	19,213	17,682	496	18,178		1,035	11,477
1979	20,768	191	734	16	141	975	22,825	20,623	450	21,073		1,751	13,228
1980	23,848	244	697	18	141	1,149	26,097	25,064	512	25,577		521	13,749
1981	32,959	276	659	22	207	1,603	35,725	30,342	384	30,726		4,999	18,748
1982	34,586	351	808	24	207	2,022	37,998	35,631	513	36,144	$-12,437	-10,583	8,164
1983	37,259	358	878	27	3,456 8/	2,593	44,570	39,337	540	39,877		4,693	12,858
1984	42,288	351	752	33	250	3,046	46,720	43,257	629	43,887		2,834	15,691
1985	47,576	371	766	41	-719 9/	3,362	51,397	47,580	834	48,414	1,824	4,808	20,499
1986	54,583	364	566	43	91	3,619	59,267	49,758	664	50,422	10,613	19,458	39,957
1987	58,648	368	447	38	94	4,469	64,064	49,496	793	50,289		13,775	53,732
Projection:													
Alternative II-A													
1988	62,369	352	475	51	93	5,769	69,109	52,133	950	53,083		16,026	69,758
1989	65,960	338	515	56	94	7,047	74,010	57,322	1,031	58,353		15,657	85,415
1990	70,365	321	411	59	-745 10/	8,324	78,735	63,886	1,119	65,005		13,730	99,145
Alternative II-B													
1988	62,203	352	475	51	93	5,770	68,944	52,128	950	53,078		15,866	69,598
1989	65,547	337	515	56	94	7,053	73,602	57,383	1,030	58,413		15,189	84,787
1990	69,695	319	411	59	-605 11/	8,327	78,206	64,064	1,115	65,179		13,027	97,814

1/ Other income includes recoveries of amounts reimbursed from the trust fund which are not obligations of the trust fund and a small amount of miscellaneous income.
2/ Includes costs of Peer Review Organizations (beginning with the implementation of the Prospective Payment System on October 1, 1983).
3/ Includes costs of experiments and demonstration projects.
4/ A negative amount is a loan to the OASI trust fund; a positive amount is a repayment of loan principal to the HI trust fund.
5/ No transfer is made in 1976 because of the change in transfer dates from December to March. The 1977 transfer is for benefits and administrative expenses during the 15-month period beginning July 1976 and ending September 1977.
6/ No transfer is made in 1977 because of the change in transfer dates from August to June. The 1978 transfer is for contributions during the 15-month period beginning July 1976 and ending September 1977.
7/ Includes $2 million in reimbursement from general revenues for costs arising from the granting of deemed wage credits to persons of Japanese ancestry who were interned during World War II.
8/ The lump sum general revenue transfer, as provided for by section 151 of P.L. 98-21.
9/ Includes the lump sum general revenue adjustment of -$805 million, as provided for by section 151 of P.L. 98-21.
10/ Includes the preliminary estimate of the lump sum general revenue adjustment of -$840 million, as provided for by section 151 of P.L. 98-21.
11/ Includes the preliminary estimate of the lump sum general revenue adjustment of -$700 million, as provided for by section 151 of P.L. 98-21.

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

TABLE 7.--RATIO OF ASSETS IN THE FUND AT THE BEGINNING OF THE YEAR TO DISBURSEMENTS DURING THE YEAR FOR THE HOSPITAL INSURANCE TRUST FUND
(In percent)

Calendar year	Ratio
Historical data:	
1967	28%
1968	25
1969	43
1970	47
1971	54
1972	47
1973	40
1974	69
1975	79
1976	77
1977	66
1978	57
1979	54
1980	52
1981	45
1982	52
1983	20
1984	29
1985	32
1986	41
1987	79
Projection:	
Alternative II-A	
1988	101
1989	120
1990	131
Alternative II-B	
1988	101
1989	119
1990	130

ACTUARIAL STATUS OF THE TRUST FUND

The Board of Trustees recommends that it is advisable to maintain a balance in the trust fund equal to a minimum of one-half year's expenditures. This principle reflects the view that a small fund is needed for the contingency that future income and outgo may differ substantially from projected levels, and to provide time for legislative action to remedy unexpected imbalances. At the beginning of 1988, the trust fund balance was above the minimum desired level.

In last year's report, the cost of the program for projected years was defined as the sum of (1) expenditures under the program and (2) an allowance for building and maintaining the fund at the level of at least a half year's disbursements after accounting for the offsetting effect of interest earnings. In this year's report, the cost of the program is defined as expenditures only, without an allowance for building and maintaining the fund. This approach is more in line with the reporting methods of the OASDI report.

The adequacy of the financing of the hospital insurance program is measured by comparing the costs of the program, expressed as percentages of taxable payroll, to the tax rates specified in the law. In projecting expenditures under the program, only costs attributable to insured beneficiaries are considered, since benefits and administrative costs for noninsured persons are financed through general revenue transfers and premium payments rather than through payroll taxes.

The historical costs of the hospital insurance program, expressed as percentages of taxable payroll, are shown in table 8. The ratio of expenditures to taxable payroll has increased from 0.94 percent in 1967 to 2.53 percent in 1987, reflecting both the higher rate of increase in program costs than in earnings subject to hospital insurance taxes and the extension of hospital insurance benefits to disabled and end-stage renal disease beneficiaries. The projected costs of the program under alternatives II-A and II-B, expressed as percentages of taxable payroll, and the tax rates scheduled under current law for selected years over the 75-year period 1988-2062, are shown in table 9. Further increases in the ratio of expenditures to taxable payroll under both alternative II-A and alternative II-B result from the projection that the cost of the hospital insurance program will continue to increase at a higher rate than taxable earnings. (See appendix A for a description of the methodology and assumptions used in these projections.)

Table 9 also indicates additional amounts needed for the cost of trust fund building and maintenance over the course of the 75-year projection period. During the early years of the projection period, income exceeds expenditures and the trust fund (expressed as a percent of the following year's outlays) increases, indicating that the tax rates scheduled in the law are already sufficient for trust fund building and maintenance. However, during the period after the trust fund declines below the level of fifty percent, there remains an unmet cost of maintaining the fund at the minimum level of fifty percent of the following year's outlays.

As mentioned, the adequacy of the financing of the hospital insurance program under current law is measured by comparing on a year-by-year basis the actual tax rates specified by law with the corresponding costs of the program, expressed as percentages of taxable payroll. If these two items are exactly equal in each year of the projection period and all projection assumptions are realized, tax revenues will be sufficient to provide for benefits and administrative expenses for insured persons. A small additional amount would be needed to maintain the trust fund at the level of one-half year's expenditures. In practice, however, tax rate schedules generally are designed with rate changes occurring only at intervals of several years, rather than with continual yearly increases to match exactly with projected cost increases. To the extent that small differences between the yearly costs of the program and the corresponding tax rates occur for short periods of time and are offset by subsequent differences in the reverse direction, the substance of the financing objectives will have been met.

The actuarial balance of the hospital insurance program is defined to be the difference between the average tax rate for the valuation period and the average expenditures of the program expressed as a percentage of taxable payroll, for the same period. The actuarial balances under alternatives II-A and II-B, as well as alternatives I and III which are described later, for the 75-year period 1988-2062 are shown in table 10. The average tax rate for the period is 2.90 percent. The average cost of the program under alternative II-A is 5.01 percent of taxable payroll. An additional 0.01 percent would be needed for building and maintenance of the trust fund. The average cost of the program under alternative II-B is 5.25 percent of taxable payroll. An additional 0.02 percent would be needed for building and maintenance of the trust fund.

Since future economic, demographic, and health care usage and cost experience may differ considerably from either set of intermediate assumptions on which the cost estimates were based, projections have also been prepared on the basis of two additional alternative sets of assumptions. The estimated operations of the hospital insurance trust fund during calendar years 1987-2010 are summarized in table 11 for all four alternatives. Table 12 compares the actuarial balances for the 75-year period 1988-2062, as well as the first, second, and third 25-year projection periods, under each of the four alternatives. The assumptions underlying alternatives II-A and II-B, the intermediate projections, are presented in substantial detail in appendix A. The assumptions used in preparing projections under alternatives I and III are also summarized in appendix A. The projections shown in the statement of expected operations and status of the trust fund through December 31, 1990, contained earlier in this report, are based on the assumptions contained in alternatives II-A and II-B.

The four alternative sets of assumptions were selected in order to indicate the general range in which the cost of the program reasonably might be expected to fall. The alternative I assumptions are somewhat more optimistic than both alternative II assumptions, resulting in a lower average cost over the projection period and a stronger trust fund development. The alternative III assumptions are somewhat more pessimistic than both alternative II assumptions, resulting in a higher average cost over the projection period and a weaker trust fund development. Alternative III thus reflects the possible impact, in the near future, of conditions which are significantly more adverse than those assumed under either of the intermediate alternatives. Alternatives I and III provide for a fairly wide range of possible experience. Actual experience reasonably may be expected to fall within the range, but no guarantee can be made that this will be the case, particularly in light of the wide variations in experience that have occurred since

the beginning of the program. The projected trust fund development under alternative III also provides a measure of the strength of the financing of the program. An adequate financing schedule ought to be sufficiently strong to withstand, for a period of several consecutive years, conditions in the general economy and in the hospital sector which are substantially more adverse than anticipated under either alternative II-A or alternative II-B.

Under both alternatives II-A and II-B, the trust fund as a percent of a year's disbursements is projected to increase until about 1994 and then decline steadily until it is completely exhausted shortly after the turn of the century. Under alternative I, the trust fund is projected to remain solvent throughout the first two 25-year projection periods, with trust fund exhaustion occurring in 2044. Under alternative III, the trust fund as a percent of a year's disbursements is projected to increase to a level of about 123 percent in 1991 and then decrease rapidly until the fund is exhausted in 1999. These projections do not reflect any reduction in disbursements due to proposed changes in regulations which were included in the 1989 Federal Budget but which have not been implemented.

The divergence in outcomes among the four alternatives is reflected both in the estimated operations of the trust fund and in the 75-year average costs. The variations in the underlying assumptions, as shown in appendix A, can be characterized as (1) moderate in terms of magnitude of the differences on a year-by-year basis, and (2) persistent over the duration of the projection period. During the first 25-year projection period, under both sets of intermediate assumptions, program expenditures are projected to grow at a rate which gradually declines to a level of about one percent more than taxable payroll by 2011. However, program expenditures are expected to grow at a rate of 1.6 percent and 1.8 percent more than taxable payroll for alternatives II-A and II-B, respectively, in 2012, when the

major demographic shift, as described below, begins. Under alternative I, program expenditures are projected to grow at a somewhat lower rate which gradually declines to a level slightly lower than the rate for taxable payroll in 2011, and increases to a level equal to the rate for taxable payroll in 2012. Similarly, alternative III follows a pattern whereby program expenditures initially increase at a somewhat higher rate, gradually declining to a difference of about 3 percent by 2011, and increasing to a difference of about 3.7 percent in 2012. Recent experience has indicated that economic conditions producing results as adverse as those under alternative III can occur. In view of this and because of the wide range of possible experience, it is important that a balance be maintained in the hospital insurance trust fund as a reserve for contingencies.

A valuation period of 75 years is needed to present fully the future contingencies that reasonably may be expected, such as the impact of the large shift in the demographic composition of the population which occurs after the turn of the century. As table 9 indicates, estimated expenditures under the program, expressed as percentages of taxable payroll, increase rapidly during the second 25 years of the projection period. This rapid increase in costs occurs because the relatively large number of persons born during the period between the end of World War II and the early 1960's (known as the "baby boom") will reach retirement age and begin to receive benefits, while the relatively small number of persons born during later years will comprise the labor force. During the last 25 years of the projection period, the projected expenditures under the program stabilize.

Costs beyond the initial 25-year projection period for alternatives II-A and II-B are based upon the assumption that costs per unit of service will increase at the same rate as earnings increase. Thus, changes in the outyears primarily reflect the impact of the changing demographic composition of the population. Costs

beyond the initial 25-year projection period for alternatives I and III begin by assuming that program cost increases, relative to taxable payroll increases, are approximately 2 percent less rapid and 2 percent more rapid, respectively, than the results under both sets of intermediate assumptions. The 2 percent differentials gradually decrease until the year 2037 when program cost increases, relative to taxable payroll, are approximately the same as under both sets of intermediate assumptions. Under alternative I, the currently scheduled tax rates are sufficient, during the first two 25-year projection periods and the early years of the last 25-year period, to support the program and allow for building the trust fund well above the minimum desired level. However, during the last 25-year projection period, it is necessary in most years to include an amount for maintaining the fund above the minimum desired level.

The 75-year actuarial balance, as defined in this year's report, of the hospital insurance program under alternative II-B, as seen in table 10, is -2.35 percent of taxable payroll. The corresponding actuarial balance as reported in the 1987 Annual Report was -2.30 percent of taxable payroll. The major reasons for the change in the 75-year actuarial balance are:

(1) Change in valuation period: Deletion of 1987 and the addition of 2062 to the 75-year projection period substitutes a relatively bad year for a good year with respect to the operations of the hospital insurance trust fund. The net effect on the actuarial balance is -0.06 percent.

(2) Updating the projection base: The cost as a percent of payroll for 1987 was less than estimated in the 1987 report. The net effect of this change is +0.09 percent on the actuarial balance.

(3) Legislation since the 1987 report: Two major legislative changes were enacted since the 1987 report. These are described on pages 14 through 16 of this report. The net effect of these changes is +0.39 percent.

(4) Economic and demographic assumptions: Changes in the economic and demographic assumptions described in Appendix A result in a -0.23 percent change on the actuarial balance. Projections of the population covered by the program are higher than in the 1987 report, while projections of covered workers are lower.

(5) Hospital assumptions: Changes in the hospital assumptions described in appendix A result in a -0.24 percent change on the actuarial balance. The primary factors contributing to the change are a higher labor hospital price assumption and a longer continuation of the current trend toward treating less complicated (and thus, less expensive) cases in outpatient settings than in tne 1987 report, resulting in an increase in the average prospective payment per admission.

The actuarial balances shown in tables 9, 10, and 12 are computed on an average cost basis, as in previous years (except for the exclusion of trust fund building and maintenance). This is the simple arithmetic average over the 25- or 75-year periods of the difference between the annual cost and annual contribution rates as a percentage of taxable payroll. Health Care Financing Administration staff is reviewing the alternative "level cost" method of displaying present values, which is being introduced this year in the OASDI report. The level cost method has been developed to reflect more accurately the consequences of the OASI and DI trust fund build-up and resulting interest income, factors which are currently less important to the HI system.

TABLE 8.--COST OF THE HOSPITAL INSURANCE PROGRAM, EXPRESSED AS A PERCENT OF TAXABLE PAYROLL

Calendar year	Expenditures under the program 1/
1967	0.94%
1968	1.04
1969	1.12
1970	1.20
1971	1.32
1972	1.30
1973	1.33
1974	1.42
1975	1.69
1976	1.83
1977	1.95
1978	2.01
1979	1.99
1980	2.20
1981	2.39
1982	2.65
1983	2.67 2/
1984	2.64
1985	2.65
1986	2.58
1987	2.53

1/ Costs attributable to insured beneficiaries only, on an incurred basis. Benefits and administrative costs for noninsured persons are financed through general revenue transfers and premium payments, rather than through payroll taxes. Gratuitous credits for military service after 1956 are included in taxable payroll.

2/ Deemed credits for military service before 1984 were attributed to the year in which such service had occurred. If all such credits had been attributed in 1983, expenditures under the program in 1983 would have been lower by .17 percent of taxable payroll.

TABLE 9.--COST AND TAX RATES OF THE HOSPITAL INSURANCE PROGRAM, EXPRESSED AS A PERCENT OF TAXABLE PAYROLL

Calendar year	Expenditures under the program 1/	Tax rates scheduled in the law 2/	Actuarial balance 3/	Trust fund building and maintenance 4/	Cost plus fund maintenance 5/	Augmented balance 6/
Alternative II-A						
1988	2.51%	2.90%	0.39%	n.a.	n.a.	n.a.
1989	2.56	2.90	0.34	n.a.	n.a.	n.a.
1990	2.68	2.90	0.22	n.a.	n.a.	n.a.
1995	3.03	2.90	-0.13	n.a.	n.a.	n.a.
2000	3.31	2.90	-0.41	n.a.	n.a.	n.a.
2005	3.53	2.90	-0.63	0.02%	3.55%	-0.65%
2010	3.77	2.90	-0.87	0.01	3.78	-0.88
2015	4.12	2.90	-1.22	0.02	4.14	-1.24
2020	4.66	2.90	-1.76	0.02	4.68	-1.78
2025	5.29	2.90	-2.39	0.03	5.32	-2.42
2030	5.85	2.90	-2.95	0.04	5.89	-2.99
2035	6.22	2.90	-3.32	0.03	6.25	-3.35
2040	6.40	2.90	-3.50	0.03	6.43	-3.53
2045	6.48	2.90	-3.58	0.04	6.52	-3.62
2050	6.55	2.90	-3.65	0.04	6.59	-3.69
2055	6.63	2.90	-3.73	0.03	6.66	-3.76
2060	6.70	2.90	-3.80	0.04	6.74	-3.84
Averages:						
1988-2012	3.26	2.90	-0.36	-0.04	3.22	-0.32
2013-2037	5.23	2.90	-2.33	0.03	5.26	-2.36
2038-2062	6.55	2.90	-3.65	0.04	6.59	-3.69
1988-2062	5.01	2.90	-2.11	0.01	5.02	-2.12
Alternative II-B						
1988	2.52	2.90	0.38	n.a.	n.a.	n.a.
1989	2.58	2.90	0.32	n.a.	n.a.	n.a.
1990	2.71	2.90	0.19	n.a.	n.a.	n.a.
1995	3.11	2.90	-0.21	n.a.	n.a.	n.a.
2000	3.42	2.90	-0.52	n.a.	n.a.	n.a.
2005	3.68	2.90	-0.78	0.02	3.70	-0.80
2010	3.96	2.90	-1.06	0.01	3.97	-1.07
2015	4.34	2.90	-1.44	0.02	4.36	-1.46
2020	4.90	2.90	-2.00	0.03	4.93	-2.03
2025	5.57	2.90	-2.67	0.03	5.60	-2.70
2030	6.16	2.90	-3.26	0.04	6.20	-3.30
2035	6.54	2.90	-3.64	0.04	6.58	-3.68
2040	6.73	2.90	-3.83	0.04	6.77	-3.87
2045	6.81	2.90	-3.91	0.05	6.86	-3.96
2050	6.89	2.90	-3.99	0.04	6.93	-4.03
2055	6.96	2.90	-4.06	0.05	7.01	-4.11
2060	7.04	2.90	-4.14	0.05	7.09	-4.19
Averages:						
1988-2012	3.37	2.90	-0.47	-0.04	3.33	-0.43
2013-2037	5.50	2.90	-2.60	0.04	5.54	-2.64
2038-2062	6.89	2.90	-3.99	0.04	6.93	-4.03
1988-2062	5.25	2.90	-2.35	0.02	5.27	-2.37

1/ Costs attributable to insured beneficiaries only, on an incurred basis. Benefits and administrative costs for noninsured persons are financed through general revenue transfers and premium payments, rather than through payroll taxes. Gratuitous credits for military service after 1956 are included in taxable payroll.

2/ Rates for employees and employers combined.

3/ Difference between the tax rate scheduled in the law and program expenditures.

4/ Allowance for building and maintaining the trust fund balance at the level of at least a half-year's outgo after accounting for the offsetting effect of interest earnings. "N.a." indicates "not applicable."

5/ Sum of program expenditures and trust fund building and maintenance. Totals do not necessarily equal the sums of rounded components. "N.a." indicates "not applicable."

6/ Difference between the tax rate scheduled in the law and the cost plus fund maintenance of the program.

NOTE: The balances shown in this table do not use the new level-financing methodology used in the OASDI report.

TABLE 10.--SEVENTY-FIVE YEAR ACTUARIAL BALANCE OF THE HOSPITAL INSURANCE PROGRAM, UNDER ALTERNATIVE SETS OF ASSUMPTIONS 1/

	Alternative			
	I	II-A	II-B	III
Average contribution rate 2/	2.90%	2.90%	2.90%	2.90%
Average program expenditures 3/ 4/	3.05	5.01	5.25	9.53
Actuarial balance 5/	-0.15	-2.11	-2.35	-6.63
Trust fund building and maintenance 3/ 6/	+0.00	+0.01	+0.02	+0.12
Program cost including trust fund building and maintenance 3/ 7/	3.05	5.02	5.27	9.65
Augmented balance 8/	-0.15	-2.12	-2.37	-6.75

1/ For the 75-year period 1988-2062.
2/ As scheduled under present law.
3/ Expressed as a percentage of taxable payroll.
4/ Expenditures for benefit payments and administrative costs for insured beneficiaries, on an incurred basis.
5/ Difference between the average contribution rate (tax rate scheduled in the law) and program expenditures.
6/ Allowance for building and maintaining the trust fund balance at the level of at least a half-year's outgo after accounting for the offsetting effect of interest earnings.
7/ Sum of program expenditures and trust fund building and maintenance.
8/ The augmented balance is the difference between the average contribution rate and the average cost of the program, including trust fund building and maintenance.

NOTE: The balances shown in this table do not use the new level-financing methodology used in the OASDI report.

TABLE 11.--ESTIMATED OPERATIONS OF THE HOSPITAL INSURANCE TRUST FUND DURING CALENDAR YEARS 1987-2010, UNDER ALTERNATIVE SETS OF ASSUMPTIONS
(Dollar amounts in billions)

Calendar year	Total income	Total disbursements	Net increase in fund	Fund at end of year	Ratio of assets to disbursements 1/ (percent)
			ALTERNATIVE I		
1987 2/	$64.1	$50.3	$13.8	$53.7	79
1988	69.3	53.0	16.2	70.0	101
1989	74.3	57.6	16.8	86.7	122
1990	78.5	63.4	15.1	101.8	137
1991	85.5	68.5	17.0	118.8	149
1992	91.1	73.4	17.8	136.6	162
1993	96.6	78.1	18.5	155.0	175
1994	102.1	83.0	19.1	174.1	187
1995	107.4	87.9	19.5	193.6	198
2000	139.1	114.6	24.5	304.9	245
2005	181.4	145.5	35.9	458.6	291
2010	235.6	183.7	52.0	683.3	344
			ALTERNATIVE II-A		
1987 2/	64.1	50.3	13.8	53.7	79
1988	69.1	53.1	16.0	69.8	101
1989	74.0	58.4	15.7	85.4	120
1990	78.7	65.0	13.7	99.1	131
1991	85.1	71.2	13.9	113.0	139
1992	90.7	77.4	13.3	126.3	146
1993	96.2	84.0	12.2	138.5	150
1994	101.7	91.0	10.7	149.2	152
1995	107.3	98.4	8.8	158.0	152
1996	113.0	106.2	6.8	164.8	149
1997	118.8	114.3	4.5	169.3	144
1998	124.9	122.9	2.0	171.3	138
1999	131.2	132.2	-1.1	170.2	130
2000	137.6	142.0	-4.4	165.8	120
2001	144.3	152.0	-7.7	158.0	109
2002	151.1	162.7	-11.6	146.5	97
2003	158.1	174.1	-16.1	130.4	84
2004	165.3	186.2	-20.9	109.5	70
2005	172.7	198.6	-25.9	83.6	55
2006	180.1	212.0	-31.9	51.7	39
2007	187.6	226.7	-39.1	12.6	23
2008	195.0	243.2	-48.2	3/	5
			ALTERNATIVE II-B		
1987 2/	64.1	50.3	13.8	53.7	79
1988	68.9	53.1	15.9	69.6	101
1989	73.6	58.4	15.2	84.8	119
1990	78.2	65.2	13.0	97.8	130
1991	84.3	71.7	12.7	110.5	136
1992	90.3	78.5	11.8	122.2	141
1993	96.3	85.9	10.4	132.7	142
1994	102.5	93.8	8.7	141.4	142
1995	108.7	102.2	6.5	147.9	138
1996	115.1	111.2	3.9	151.8	133
1997	121.5	120.4	1.1	152.9	126
1998	128.2	130.4	-2.2	150.7	117
1999	134.9	141.2	-6.3	144.4	107
2000	141.9	152.7	-10.8	133.6	95
2001	149.0	164.5	-15.5	118.0	81
2002	156.2	177.2	-21.0	97.0	67
2003	163.6	190.9	-27.3	69.7	51
2004	171.2	205.3	-34.1	35.7	34
2005	179.0	220.3	-41.3	4/	16
			ALTERNATIVE III		
1987 2/	64.1	50.3	13.8	53.7	79
1988	68.2	53.1	15.1	68.8	101
1989	71.6	58.7	12.9	81.8	117
1990	77.2	66.8	10.4	92.2	122
1991	82.8	75.1	7.7	99.9	123
1992	86.8	82.8	4.0	103.9	121
1993	92.8	92.6	0.2	104.1	112
1994	98.9	103.8	-4.9	99.3	100
1995	104.7	116.1	-11.3	87.9	86
1996	110.4	129.2	-18.9	69.0	68
1997	115.7	143.3	-27.7	41.4	48
1998	120.4	158.5	-38.1	3.3	26
1999	125.1	175.4	-50.2	5/	2

1/ Ratio of assets in the trust fund at the beginning of the year to disbursements during the year.
2/ Figures for 1987 represent actual experience.
3/ Trust fund depleted in calendar year 2008.
4/ Trust fund depleted in calendar year 2005.
5/ Trust fund depleted in calendar year 1999.

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

TABLE 12.--ACTUARIAL BALANCES OF THE HOSPITAL INSURANCE PROGRAM, UNDER ALTERNATIVE SETS OF ASSUMPTIONS

	Alternative			
	I	II-A	II-B	III
1988-2012:				
Average contribution rate 1/	2.90%	2.90%	2.90%	2.90%
Average program expenditures 2/	2.68	3.26	3.37	4.36
Actuarial balance 3/	+0.22	-0.36	-0.47	-1.46
2013-2037:				
Average contribution rate 1/	2.90	2.90	2.90	2.90
Average program expenditures 2/	2.98	5.23	5.50	10.37
Actuarial balance 3/	-0.08	-2.33	-2.60	-7.47
2038-2062:				
Average contribution rate 1/	2.90	2.90	2.90	2.90
Average program expenditures 2/	3.48	6.55	6.89	13.85
Actuarial balance 3/	-0.58	-3.65	-3.99	-10.95
1988-2062:				
Average contribution rate 1/	2.90	2.90	2.90	2.90
Average program expenditures 2/	3.05	5.01	5.25	9.53
Actuarial balance 3/	-0.15	-2.11	-2.35	-6.63

1/ As scheduled under present law.
2/ Expenditures for benefit payments and administrative costs for insured beneficiaries, on an incurred basis, expressed as a percentage of taxable payroll.
3/ Difference between the average contribution rate (tax rate scheduled in the law) and program expenditures.

NOTE: The balances shown in this table do not use the new level-financing methodology used in the OASDI report.

CONCLUSION

The balance in the Federal Hospital Insurance Trust Fund at the beginning of 1988 was at the level of 101 percent of estimated outgo for calendar year 1988. This is above the 50 percent level recommended by the Board of Trustees. The tax rates specified in the law are sufficient, along with interest earnings and assets in the fund, to support program expenditures over the next seventeen to twenty years under the intermediate assumptions. However, any significant adverse deviation from these projections could result in the inability of the fund to meet its obligations much sooner than projected. In order to bring the hospital insurance program into actuarial balance even for the first 25-year projection period under the alternative II-B assumptions, either outlays will have to be reduced by 14 percent or income increased by 16 percent (or some combination thereof).

Over the 75-year projection period, the average tax rate necessary to provide for benefits and administrative expenses exceeds the average tax rate scheduled in the law, producing an average deficit of 2.35 percent of taxable payroll under alternative II-B and 2.11 percent under alternative II-A. For the first 25-year projection period, the average deficit is 0.36 and 0.47 percent of taxable payroll for alternative II-A and alternative II-B, respectively. The average deficit grows to 2.33 and 2.60 percent of taxable payroll for alternatives II-A and II-B, respectively, during the second 25-year projection period, and to 3.65 and 3.99 percent of taxable payroll for alternatives II-A and II-B, respectively, during the third 25-year projection period.

There are currently over four covered workers supporting each HI enrollee. This ratio will begin to decline rapidly early in the next century. By the middle of

that century, there will be only about two covered workers supporting each enrollee. As the post-World War II "baby boom" becomes eligible for benefits, the increase in program costs as a percentage of taxable payroll rises dramatically, from 0.9 percent in 2010 to 1.8 percent in 2012 under alternative II-B (see table A2 on page 69). Not only are the anticipated reserves and financing of the HI program inadequate to offset this demographic change, but under all but the most optimistic assumptions, the HI trust fund is projected to become exhausted even before the major demographic shift begins to occur. Exhaustion is projected to occur shortly after the turn of the century under the intermediate assumptions, and could occur as early as 1999 if the pessimistic assumptions are realized.

The Board notes that promising steps to begin reducing the rate of growth in payments to hospitals have already been taken, including the implementation of prospective payment and diagnosis-related groups and the legislation described on pages 14 through 16 of this report. Initial experience under the prospective payment system for hospitals suggests that this payment mechanism is an effective means of constraining the growth in hospital payments and improving the efficiency of the hospital industry. Efforts focused on improving the efficiency and reducing the costs of the health care delivery system need to be continued, in close combination with mechanisms that will assure that the quality of health care is not adversely affected.

Because of the magnitude of the projected actuarial deficit in the HI program and the probability that the HI trust fund will be exhausted shortly after the turn of the century, the Board believes that early corrective action is essential in order to avoid the need for later, potentially precipitous changes. The Board, therefore, urges that the Congress take early remedial measures to bring future HI program costs and financing into balance, and to maintain an adequate trust fund against contingencies.