

### III. APPENDICES

#### ***A. ACTUARIAL BALANCE UNDER ALTERNATIVE ASSUMPTIONS AND METHODS***

In section I.D, the summarized income rates, cost rates, and actuarial balances are presented under the present-value method. The actuarial balance computed under the present-value method represents the immediate, level, and permanent percentage that must be added to the current law income rates and/or subtracted from the current law cost rates throughout the entire valuation period in order for the financing to support program costs and provide for the targeted trust fund balance at the end of the projection period. Such an immediate and permanent income rate increase (or cost reduction) would, initially, accumulate a substantial trust fund. Such a large trust fund would result in substantial interest credits, significantly exceeding those that would be earned under current law financing.

Thus, under the present-value method, hypothetical interest credits would finance a significant portion of the cost of the HI program. This heavy reliance on hypothetical interest credits is of particular concern because eventually the government will have to find a real source of revenue to cover the interest credited to the trust fund.

The income rate increase according to the present-value method is 4.14 percent of taxable payroll. In this appendix, the same summary measures are presented for the HI program, but under the modified average-cost method, and the modified average-cost methodology is described.

Under the modified average-cost method, which was used prior to 1988 to evaluate the actuarial status of the program, the actuarial balance is defined as the difference between the arithmetic means of the annual cost rates (as defined in section I.D) and the annual income rates. Thus, under this method, the cost rates and income rates for each year are given equal weights when summarized into a single measure. The annual cost rates include an amount to maintain the trust fund at a desired target level, if the fund would otherwise drop below that level. In addition, the actuarial balances calculated under the modified average-cost method reflect the starting trust fund balance and the actual interest earned on the trust fund before it is exhausted.

The actuarial balance using the modified average-cost method can thus be characterized as being mathematically equivalent to the average annual income rate increases needed to maintain the trust fund at the target level over the 75-year projection period, taking into account the beginning trust fund balance and the interest earnings of the trust fund. The implied funding pattern under the modified average-cost method is that the current law trust fund ratios are maintained until the trust fund ratio falls below the target

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amount (100 percent of the following year's estimated expenditures, in this year's report). After that, the income rate is increased each year to cover the cost of the program and to maintain the trust fund at the target level. The actuarial balance using this method under the Trustees' intermediate assumptions is -4.59 (as compared to the -4.14 under the present-value method).

The results in Table III.A1 also include the impact of an alternative intermediate assumption for real earnings. During the last quarter century, the average annual increase in real earnings has amounted to 0.1 percent. The estimates in this appendix assume an annual real earnings increase of 0.1 percent for the next 10 years (consistent with the experience of the last quarter century) changing gradually to 0.5 percent over the next 25 years and remaining level at 0.5 percent for the remainder of the 75-year period.

The results of calculating the actuarial balance using the modified average-cost method and the alternate real earnings increases are presented in Table III.A1. Other assumptions used to calculate the results are the same as those presented throughout this report.

**TABLE III.A1. -- ACTUARIAL BALANCES OF THE HI PROGRAM, UNDER ALTERNATIVE SETS OF ASSUMPTIONS (MODIFIED AVERAGE-COST METHOD)**

	Intermediate Assumptions	Alternative	
		Low Cost	High Cost
<b>1994-2018:</b>			
Summarized income rate <sup>1</sup>	3.08%	3.06%	3.10%
Summarized cost rate <sup>2</sup>	4.93	3.87	6.39
Actuarial balance <sup>3</sup>	-1.85	-0.81	-3.29
<b>1994-2043:</b>			
Summarized income rate <sup>1</sup>	3.20	3.15	3.25
Summarized cost rate <sup>2</sup>	7.18	4.53	11.85
Actuarial balance <sup>3</sup>	-3.98	-1.38	-8.60
<b>1994-2068:</b>			
Summarized income rate <sup>1</sup>	3.28	3.21	3.38
Summarized cost rate <sup>2</sup>	8.81	5.11	15.70
Actuarial balance <sup>3</sup>	-5.53	-1.90	-12.32

<sup>1</sup>Under present law.

<sup>2</sup>Expenditures for benefit payments and administrative costs for insured beneficiaries, on an incurred basis, expressed as a percentage of taxable payroll, computed with alternate real earnings increases on the modified average-cost basis, including the cost of maintaining the trust fund at a level of 100% of the following year's estimated expenditures, and including an offset to cost due to the beginning trust fund balance.

<sup>3</sup>Difference between the summarized income rate and the summarized cost rate.

**B. MEDICARE INCURRED DISBURSEMENTS AS A PERCENT OF GROSS DOMESTIC PRODUCT FROM CALENDAR YEAR 1993 TO 2068**

Medicare incurred disbursements as a percentage of GDP gives a relative measure of the size of the Medicare program to the general economy. For these purposes, incurred disbursements are the sum of the incurred benefit and administrative expenses. The projection of this relative measure of disbursements affords the public an idea of the relative financial resources that will be necessary to pay for Medicare services.

Table III.A1 shows estimated incurred disbursements for the HI and SMI programs under the intermediate assumptions expressed as a percentage of GDP, for selected years over the period CY 1993-2068. (The percentages for SMI are identical to the values in Table I.C4.) These incurred disbursements assume no change in current law for any specific program legislation or for any comprehensive health care reform. The 75-year projection period fully allows for the presentation of future contingencies that reasonably may be expected to occur, such as the impact of a large increase in enrollees which occurs after the turn of the century. This large increase in enrollees 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.

**Table III.B1. -- HOSPITAL AND SUPPLEMENTARY MEDICAL INSURANCE INCURRED DISBURSEMENTS AS A PERCENT OF GROSS DOMESTIC PRODUCT<sup>1</sup>**

Calendar year	Disbursements as a percent of GDP		
	HI	SMI	Total
1993	1.52	0.88	2.40
1994	1.60	0.93	2.53
1995	1.66	0.99	2.65
2000	1.95	1.31	3.26
2005	2.24	1.77	4.01
2010	2.48	2.37	4.85
2015	2.84	2.91	5.75
2020	3.22	3.27	6.49
2025	3.64	3.67	7.31
2030	4.04	4.01	8.05
2035	4.33	4.17	8.50
2040	4.47	4.16	8.63
2045	4.55	4.10	8.65
2050	4.59	4.05	8.64
2055	4.66	4.09	8.75

**Table III.B1. – HOSPITAL AND SUPPLEMENTARY MEDICAL INSURANCE INCURRED DISBURSEMENTS AS A PERCENT OF GROSS DOMESTIC PRODUCT<sup>1</sup>**

Calendar year	Disbursements as a percent of GDP		
	HI	SMI	Total
2060	4.77	4.21	8.98
2065	4.90	4.33	9.23
2068	4.98	4.37	9.35

<sup>1</sup>Disbursements are the sum of benefit payments and administrative expenses.

For HI, program costs beyond the first 25-year projection period are based on the assumption that costs per unit of service will increase at the same rate as average hourly earnings increase. The associated aggregate disbursements are then represented as a percentage of GDP. For SMI, increases in the costs per enrollee during the initial 25-year period are assumed to gradually decline in the last 12 years to the same rate as GDP per capita and then continue at the same rate as GDP per capita in the last 50 years. Given the historical experience of SMI costs per enrollee increasing faster than GDP per capita, the assumption of the increases in costs per enrollee declining to the same rate as GDP per capita may be considered optimistic because changes in the last 50 years of the estimation period reflect only the impact of the changing demographic composition of the population.

Based on these assumptions, incurred Medicare disbursements as a percent of GDP are assumed to increase rapidly from 2.40 percent in CY 1993 to 8.56 percent in CY 2036 and then increase gradually to 9.35 percent in CY 2068. After CY 2036, while Medicare disbursements as a percent of GDP increase more slowly, the HI percentage grows steadily while the SMI percentage decreases slightly to CY 2051 and then increases again to CY 2068.

***C. ANNOUNCEMENT OF THE MEDICARE PART A (HOSPITAL INSURANCE) INPATIENT HOSPITAL DEDUCTIBLE AND HOSPITAL AND EXTENDED CARE SERVICES COINSURANCE AMOUNTS, FOR CALENDAR YEAR 1994<sup>1</sup>***

**SUMMARY:** This notice announces the inpatient hospital deductible and the hospital and extended care services coinsurance amounts for services furnished in calendar year 1994 under Medicare's hospital insurance program (Medicare Part A). The Medicare statute specifies the formulae to be used to determine these amounts.

The inpatient hospital deductible will be \$696. The daily coinsurance amounts will be: (a) \$174 for the 61st through 90th days of hospitalization in a benefit period; (b) \$348 for lifetime reserve days; and (c) \$87 for the 21st through 100th days of extended care services in a skilled nursing facility in a benefit period.

Effective Date: January 1, 1994.

**SUPPLEMENTARY INFORMATION:**

**1. Background**

Section 1813 of the Social Security Act (the Act) provides for an inpatient hospital deductible to be subtracted from the amount payable by Medicare for inpatient hospital services furnished to a beneficiary. It also provides for certain coinsurance amounts to be subtracted from the amounts payable by Medicare for inpatient hospital and extended care services. Section 1813(b)(2) of the Act requires the Secretary to determine and publish between September 1 and September 15 of every year the amount of the inpatient

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<sup>1</sup> Extracted from the notice entitled "Medicare Program; Inpatient Hospital Deductible and Hospital and Extended Care Services Coinsurance Amounts for 1994," which was published in the Federal Register on November 2, 1993 (Vol. 58, no. 210, pp. 58553-58555).

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hospital deductible and the hospital and extended care services coinsurance amounts applicable for services furnished in the following calendar year.

### **2. Computing the Inpatient Hospital Deductible for 1994**

Section 1813(b) of the Act prescribes the method for computing the amount of the inpatient hospital deductible. The inpatient hospital deductible is an amount equal to the inpatient hospital deductible for the preceding calendar year, changed by the Secretary's best estimate of the payment-weighted average of the applicable percentage increases (as defined in section 1886(b)(3)(B) of the Act). This estimate is used for updating the payment rates to hospitals for discharges in the fiscal year (FY) that begins on October 1 of the same preceding calendar year and adjusted to reflect real case mix. The adjustment to reflect real case mix is determined on the basis of the most recent case mix data available. The amount determined under the formula is rounded to the nearest multiple of \$4 (or, if midway between two multiples of \$4, to the next higher multiple of \$4).

For FY 1994, section 1886(b)(3)(B)(i)(IX) of the Act, as amended by section 13501 of the Omnibus Budget Reconciliation Act of 1993 (Public Law 103-66, enacted on August 10, 1993), provides that the applicable percentage increase for urban prospective payment system hospitals is the market basket percentage increase minus 2.5 percent, and the applicable percentage increase for rural prospective payment system hospitals is the market basket percentage increase minus 1.0 percent. Section 1886(b)(3)(B)(ii)(V) of the Act, as added by section 13502 of Public Law 103-66, provides that for FY 1994, the otherwise applicable rate-of-increase percentages (the market basket percentage increase) for hospitals that are excluded from the prospective payment system are reduced by the lesser of 1 percentage point or the percentage point difference between 10 percent and the percentage by which the hospital's allowable operating costs of inpatient hospital services for cost reporting periods beginning in FY 1990 exceeds the hospital's target amount. Hospitals or distinct part hospital units with FY 1990 operating costs exceeding target amounts by 10 percent or more receive the market basket index percentage. The market basket percentage increases for FY 1994 are 4.3 percent for prospective payment system hospitals and 4.3 percent for hospitals excluded from the prospective payment system, as announced in the **Federal Register** on September 1, 1993 (58 FR 46270). Therefore, the percentage increases for Medicare prospective payment rates are 1.8 percent for urban hospitals and 3.3 percent for rural hospitals. The average payment percentage increase for hospitals excluded from the prospective payment

system is 3.71 percent, computed as required by section 13502 of Public Law 103-66. Thus, weighting these percentages in accordance with payment volume, the Secretary's best estimate of the payment-weighted average of the increases in the payment rates for FY 1994 is 2.04 percent.

To develop the adjustment for real case mix, an average case mix was first calculated for each hospital that reflects the relative costliness of that hospital's mix of cases compared to that of other hospitals. We then computed the increase in average case mix for hospitals paid under the Medicare prospective payment system in FY 1993 compared to FY 1992. (Hospitals excluded from the prospective payment system were excluded from this calculation since their payments are based on reasonable costs and are affected only by real increases in case mix.) We used bills from prospective payment hospitals received in HCFA as of the end of July 1993. These bills represent a total of about 8 million discharges for FY 1993 and provide the most recent case mix data available at this time. Based on these bills, the increase in average case mix in FY 1993 is 0.46 percent. Based on past experience, we expect overall case mix to increase beyond 1 percent as the year progresses and more FY 1993 data becomes available.

Section 1813 of the Act requires that the inpatient hospital deductible be increased only by that portion of the case mix increase that is determined to be real. We estimate that the increase in real case mix is about 1 percent. Since real case mix has been increasing at about 1 percent per year over the last few years, we expect that this trend will continue. Consequently, we will continue to use our estimate of 1 percent for the real case mix increase.

Thus, the estimate of the payment-weighted average of the applicable percentage increases used for updating the payment rates is 2.04 percent, and the real case mix adjustment factor for the deductible is 1 percent. Therefore, under the statutory formula, the inpatient hospital deductible for services furnished in calendar year 1994 is \$696. This deductible amount is determined by multiplying \$676 (the inpatient hospital deductible for 1993) by the payment rate increase of 1.0204 multiplied by the increase in real case mix of 1.01 which equals \$696.69 and is rounded to \$696.

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### **3. Computing the Inpatient Hospital and Extended Care Services Coinsurance Amounts for 1994**

The coinsurance amounts provided for in section 1813 of the Act are defined as fixed percentages of the inpatient hospital deductible for services furnished in the same calendar year. Thus, the increase in the deductible generates increases in the coinsurance amounts. For inpatient hospital and extended care services furnished in 1994, in accordance with the fixed percentages defined in the law, the daily coinsurance for the 61st through 90th days of hospitalization in a benefit period will be \$174 (1/4 of the inpatient hospital deductible); the daily coinsurance for lifetime reserve days will be \$348 (1/2 of the inpatient hospital deductible); and the daily coinsurance for the 21st through 100th days of extended care services in a skilled nursing facility in a benefit period will be \$87 (1/8 of the inpatient hospital deductible).

### **4. Cost to Beneficiaries**

We estimate that in 1994 there will be about 8.8 million deductibles paid at \$696 each, about 3.3 million days subject to coinsurance at \$174 per day (for hospital days 61 through 90), about 1.4 million lifetime reserve days subject to coinsurance at \$348 per day, and about 18 million extended care days subject to coinsurance at \$87 per day. Similarly, we estimate that in 1993 there will be about 8.5 million deductibles paid at \$676 each, about 3.2 million days subject to coinsurance at \$169 per day (for hospital days 61 through 90), about 1.3 million lifetime reserve days subject to coinsurance at \$338 per day, and about 17 million extended care days subject to coinsurance at \$84.50 per day. Therefore, the estimated total increase in cost to beneficiaries is about \$590 million (rounded to the nearest \$10 million), due to (1) the increase in the deductible and coinsurance amounts and (2) the change in the number of deductibles and daily coinsurance amounts paid.

### **5. Regulatory Impact Statement**

This notice merely announces amounts required by legislation. This notice is not a proposed rule or a final rule issued after a proposal and does not alter any regulation or policy. Therefore, we have determined, and the Secretary certifies, that no analyses are required under Executive Order 12866, the Regulatory Flexibility Act (5 U.S.C. 601 through 612), or section 1102(b) of the Act.

**Dated: September 2, 1993.**

**Bruce C. Vlodeck,  
Administrator,  
Health Care Financing Administration**

**Approved: September 26, 1993.**

**Donna E. Shalala,  
Secretary**

***D. ANNOUNCEMENT OF THE MEDICARE PART A (HOSPITAL INSURANCE) MONTHLY PREMIUM RATE FOR THE UNINSURED AGED AND FOR CERTAIN DISABLED INDIVIDUALS WHO HAVE EXHAUSTED OTHER ENTITLEMENT, FOR CALENDAR YEAR 1994***<sup>1</sup>

**SUMMARY:** This notice announces the hospital insurance premium for calendar year 1994 under Medicare's hospital insurance program (Part A) for the uninsured aged and for certain disabled individuals who have exhausted other entitlement. The monthly Medicare Part A premium for the 12 months beginning January 1, 1994 for these individuals is \$245. The reduced premium for certain other individuals as described in this notice is \$184. Section 1818(d) of the Social Security Act specifies the method to be used to determine these amounts.

Effective Date: January 1, 1994.

**SUPPLEMENTARY INFORMATION:**

**1. Background**

Section 1818 of the Social Security Act (the Act) provides for voluntary enrollment in the Medicare hospital insurance program (Medicare Part A), subject to payment of a monthly premium, of certain persons who are age 65 and older, uninsured for social security or railroad retirement benefits and do not otherwise meet the requirements for entitlement to Medicare Part A. (Persons insured under the Social Security or Railroad Retirement Acts need not pay premiums for hospital insurance.)

Section 1818(d) of the Act requires the Secretary to estimate, on an average per capita basis, the amount to be paid from the Federal Hospital Insurance Trust Fund for services performed and for related administrative costs incurred in the following year with respect to individuals age 65 and over who

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<sup>1</sup>Extracted from the notice entitled "Medicare Program; Part A Premium for 1994 for the Uninsured Aged and for Certain Disabled Individuals Who Have Exhausted Other Entitlement," which was published in the Federal Register on November 2, 1993 (Vol. 58, No. 210, pp. 58555-58556).

will be entitled to benefits under Medicare Part A. The Secretary must then, during September of each year, determine the monthly actuarial rate (the per capita amount estimated above divided by 12) and publish the dollar amount to be applicable for the monthly premium in the succeeding year. If the premium is not a multiple of \$1, the premium is rounded to the nearest multiple of \$1 (or, if it is a multiple of 50 cents but not of \$1, it is rounded to the next highest \$1). The 1993 premium under this method was \$221 and was effective January 1993. (See 57 FR 56918; December 1, 1992.)

Section 1818(d)(2) of the Act requires the Secretary to determine and publish, during September of each calendar year, the amount of the monthly premium for the following calendar year for persons who voluntarily enroll in Medicare Part A.

Section 1818A of the Act provides for voluntary enrollment in Medicare Part A, subject to payment of a monthly premium, of certain disabled individuals who have exhausted other entitlement. These individuals are those not now entitled but who have been entitled under section 226(b) of the Act, continue to have the disabling impairment upon which their entitlement was based, and whose entitlement ended solely because they had earnings that exceeded the substantial gainful activity amount (as defined in section 223(d)(4) of the Act).

Section 1818A(d)(2) of the Act specifies that the premium determined under section 1818(d)(2) of the Act for the aged will also apply to certain disabled individuals as described above.

Section 13508 of the Omnibus Budget Reconciliation Act of 1993 (OBRA 1993)(Public Law 103-66, enacted on August 10, 1993) amended section 1818(d) of the Act to provide, beginning in calendar year 1994, for a reduction in the monthly premium amount for certain voluntary enrollees. The reduction applies for individuals who are not eligible for social security or railroad retirement benefits but who:

- (1) Had at least 30 quarters of coverage under title II of the Act;
- (2) Were married and had been married for the previous 1-year period to an individual who had at least 30 quarters of coverage;

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- (3) Had been married to an individual for at least 1 year at the time of the individual's death and the individual had at least 30 quarters of coverage; or
- (4) Are divorced from an individual who at the time of the divorce had at least 30 quarters of coverage and the marriage lasted at least 10 years.

For calendar year 1994, section 1818(d)(4)(A), as added by section 13508 of OBRA 1993 specifies that the monthly premium that these individuals will pay for calendar year 1994 will be equal to the monthly premium for aged voluntary enrollees reduced by 25 percent.

### **2. Premium Amount for 1994**

Under the authority of sections 1818(d)(2) and 1818A(d)(2) of the Act (42 U.S.C. 1395i-2(d)(2) and 1395i-2a(d)(2)), the Secretary has determined that the monthly Medicare Part A hospital insurance premium for the uninsured aged and for certain disabled individuals who have exhausted other entitlement for the 12 months beginning January 1, 1994 is \$245.

The monthly premium for those individuals entitled to a 25 percent reduction in the monthly premium for the 12-month period beginning January 1, 1994 is \$184.

### **3. Statement of Actuarial Assumptions and Bases Employed in Determining the Monthly Premium Rate**

As discussed in section 1 of this notice, the monthly Medicare Part A premium for 1994 is equal to the estimated monthly actuarial rate for 1994 rounded to the nearest multiple of \$1. The monthly actuarial rate is defined to be one-twelfth of the average per capita amount that the Secretary estimates will be paid from the Federal Hospital Insurance Trust Fund for services performed and related administrative costs incurred in 1993 for individuals age 65 and over who will be entitled to benefits under the hospital insurance program. Thus, the number of individuals age 65 and over who will be entitled to hospital insurance benefits and the costs incurred on behalf of these beneficiaries must be projected to determine the premium rate.

The principal steps involved in projecting the future costs of the hospital insurance program are (a) establishing the present cost of services provided

to beneficiaries, by type of service, to serve as a projection base; (b) projecting increases in payment amounts for each of the various service types; and (c) projecting increases in administrative costs. Establishing historical Medicare Part A enrollment and projecting future enrollment, by type of beneficiary, is part of this process.

We have completed all of the above steps, basing our projections for 1994 on (a) current historical data and (b) projection assumptions under current law from the Midsession Review of the President's Fiscal Year 1994 Budget, incorporating the provisions of OBRA 1993. It is estimated that in calendar year 1994, 31.557 million people age 65 and over will be entitled to Medicare Part A benefits (without premium payment), and that these individuals will, in 1994, incur \$92.843 billion of benefits for services performed and related administrative costs. Thus, the estimated monthly average per capita amount is \$245.17 and the monthly premium is \$245. The monthly premium for those individuals eligible to pay this premium reduced by 25 percent is \$184.

#### **4. Costs to Beneficiaries**

The 1994 Medicare Part A premium is about 11 percent higher than the \$221 monthly premium amount for the 12-month period beginning January 1, 1993.

We estimate that there will be, in calendar year 1994, approximately 225,000 enrollees who will voluntarily enroll in Medicare Part A by paying the full premium and who do not otherwise meet the requirements for entitlement. An additional 5,000 enrollees will be paying the reduced premium. The estimated overall effect of the changes in the premium will be a cost to these voluntary enrollees of about \$60 million.

#### **5. Regulatory Impact Statement**

This notice merely announces amounts required by legislation. This notice is not a proposed rule or a final rule issued after a proposal, and does not alter any regulation or policy. Therefore, we have determined, and the Secretary certifies, that no analyses are required under Executive Order 12866, the Regulatory Flexibility Act (5 U.S.C. 601 through 612) or section 1102(b) of the Act.

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Dated: September 17, 1993.

**Bruce Vladeck,  
Administrator,  
Health Care Financing Administration**

Approved: October 17, 1993.

**Donna E. Shalala,  
Secretary**

## E. GLOSSARY

**Actuarial balance.** The difference between the summarized income rate and the summarized cost rate over a given valuation period.

**Actuarial deficit.** A negative actuarial balance.

**Administrative expenses.** Expenses incurred by the Department of HHS and the Department of the Treasury in administering the HI program and the provisions of the Internal Revenue Code relating to the collection of contributions. Such administrative expenses, which are paid from the HI trust fund, include expenditures for intermediaries to determine costs of and make payments to providers as well as salaries and expenses of the HCFA.

**Advisory Council on Social Security.** Under the Social Security Act, an Advisory Council is appointed every 4 years to study and review the financial status of the OASDI and Medicare programs. The most recent Advisory Council was appointed in 1989 and issued its reports in 1991. The next Advisory Council is scheduled to be named in 1994.

**Aged enrollee.** An individual, age 65 or over, who is enrolled in the HI program.

**Annual balance.** The difference between the income rate and the cost rate in a given year.

**Assets.** Treasury notes and bonds guaranteed by the Federal government and cash held by the trust fund.

**Assumptions.** Values relating to future trends in certain key factors which affect the balance in the trust funds. Demographic assumptions include fertility, mortality, net immigration, marriage, divorce, retirement patterns, disability incidence and termination rates, and changes in the labor force. Economic assumptions include unemployment, average earnings, inflation, interest rates, and productivity. Three sets of economic assumptions are presented in the Trustees Report:

- (1) The low cost alternative, with relatively rapid economic growth, low inflation, and favorable (from the standpoint of program financing) demographic conditions;

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- (2) The intermediate assumptions represent the Trustees' best estimates of likely future economic and demographic conditions; and
- (3) The high cost alternative, with slow economic growth, more rapid inflation, and financially disadvantageous demographic conditions.

See also "Hospital assumptions."

**Automatic adjustment provisions.** The provisions of section 230 of the Social Security Act that are used each year (except when overruled by law) to increase the annual contribution base.

**Average market yield.** A computation which is made on all marketable interest-bearing obligations of the United States. It is computed on the basis of market quotations as of the end of the calendar month next preceding the date of such issue.

**Baby boom.** The period from the end of World War II through the mid-1960s marked by unusually high birth rates.

**Base estimate.** The updated estimate of the most recent historical year.

**Beneficiary.** A person enrolled in the HI program. See also "Aged enrollee" and "Disabled enrollee."

**Benefit payments.** The amounts disbursed for covered services after the deductible and coinsurance amounts have been deducted.

**Benefit period.** An alternate name for "spell of illness."

**Board of Trustees.** A Board established by the Social Security Act to oversee the financial operations of the Federal Hospital Insurance Trust Fund. The Board is composed of five members, three of whom serve automatically by virtue of their positions in the Federal government: the Secretary of the Treasury, the Secretary of Labor, and the Secretary of Health and Human Services. The other two members are appointed by the President as public representatives: Stanford G. Ross and David M. Walker are currently serving four-year terms that began on October 2, 1990. The Administrator of the HCFA serves as Secretary of the Board of Trustees.

**Bond.** A certificate of ownership of a specified portion of a debt due by the Federal government to holders, bearing a fixed rate of interest.

**Callable.** Subject to redemption upon notice, such as a bond.

**Case mix index.** The average DRG relative weight for all the Medicare admissions.

**Cash basis.** The costs of the service at the point payment was made rather than when the service was performed.

**Certificate of indebtedness.** A short-term certificate of ownership of 12 months or less of a specified portion of a debt due by the Federal government to individual holders, bearing a fixed rate of interest.

**Coinsurance.** See "Hospital coinsurance" and "SNF coinsurance."

**Consumer Price Index (CPI).** A measure of the average change in prices over time in a fixed group of goods and services. In this report, all references to the CPI relate to the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

**Contribution base.** Annual dollar amount above which earnings in employment covered under the HI program are not taxable. Beginning in 1994, the contribution base is eliminated under HI.

**Contribution rate.** The percentage of taxable earnings, up to the contribution base, that is paid for the HI tax. Currently, the percentages are 1.45 for employees and employers, each. The self-employed pay 2.9 percent.

**Contributions.** See "Net contributions."

**Cost rate.** The ratio of the cost (or outgo, expenditures, or disbursements) of the program on an incurred basis during a given year to the taxable payroll for the year. In this context, the outgo is defined to exclude benefit payments, and administrative costs for certain uninsured persons, for whom payments are reimbursed from the general fund of the Treasury, and for voluntary enrollees, who pay a premium in order to be enrolled.

**Covered earnings.** Earnings in employment covered by the HI program.

**Covered employment.** All employment and self-employment creditable for Social Security purposes. Almost every kind of employment and self-employment is covered under the program. In a few employment

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situations, for example, religious orders under a vow of poverty, foreign affiliates of American employers, or State and local governments, coverage must be elected by the employer. However, effective July 1991, coverage is mandatory for State and local employees who are not participating in a public employee retirement system. All new State and local employees have been covered since April 1986. In a few situations, for example, ministers or self-employed members of certain religious groups, workers can opt out of coverage. Covered employment for HI includes all Federal employees (whereas covered employment for OASDI includes some, but not all, Federal employees).

**Covered services.** Services for which HI pays, as defined and limited by statute. Covered services are provided by hospitals (inpatient care), skilled nursing facilities, home health agencies, and hospices.

**Covered worker.** A person who has earnings creditable for Social Security purposes on the basis of services for wages in covered employment and/or on the basis of income from covered self-employment. The number of HI covered workers is slightly larger than the number of OASDI covered workers because of different coverage status for Federal employment. See "Covered employment."

**Deductible.** See "Inpatient hospital deductible."

**Deemed wage credit.** See "Non-contributory or deemed wage credits."

**Demographic assumptions.** See "Assumptions."

**Diagnosis-related groups (DRGs).** A classification system that groups patients according to diagnosis, type of treatment, age, and other relevant criteria. Under the prospective payment system, hospitals are paid a set fee for treating patients in a single DRG category, regardless of the actual cost of care for the individual.

**Disability.** For Social Security purposes, the inability to engage in substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or to last for a continuous period of not less than 12 months. Special rules apply for workers age 55 or older whose disability is based on blindness. The law generally requires that a person be disabled continuously for 5 months before he or she can qualify

for a disabled-worker cash benefit. An additional 24 months is necessary to qualify for benefits under Medicare.

**Disability Insurance (DI).** See "Old-Age, Survivors, and Disability Insurance (OASDI)."

**Disabled enrollee.** An individual under age 65 who has been entitled to disability benefits under Title II of the Social Security Act or the railroad retirement system for at least 2 years and who is enrolled in the HI program.

**DRG Coding.** The DRG categories used by hospitals on discharge billing. See also "Diagnosis-related groups (DRGs)."

**Earnings.** Unless otherwise qualified, all wages from employment and net earnings from self-employment, whether or not taxable or covered.

**Economic assumptions.** See "Assumptions."

**End-stage renal disease (ESRD).** Permanent kidney failure.

**Excess wages.** Wages in excess of the contribution base on which a worker initially pays taxes (usually as a result of working for more than one employer during a year). Employee taxes on excess wages are refunded to affected employees, while the employer taxes are not refunded.

**Extended care services.** In the context of this report, an alternate name for "skilled nursing facility services."

**Federal Insurance Contributions Act (FICA).** Provision authorizing taxes on the wages of employed persons to provide for the OASDI and HI programs. The tax is paid in equal amounts by covered workers and their employers.

**Financial interchange.** Provisions of the Railroad Retirement Act providing for transfers between the trust funds and the Social Security Equivalent Benefit Account of the Railroad Retirement program in order to place each trust fund in the same position as if railroad employment had always been covered under Social Security.

**Fiscal year (FY).** The accounting year of the United States Government. Since 1976, each fiscal year has begun October 1 of the prior calendar year

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and ended the following September 30. For example, fiscal year 1994 began October 1, 1993 and will end September 30, 1994.

**Fixed capital assets.** The net worth of facilities and other resources.

**General fund of the Treasury.** Funds held by the Treasury of the United States, other than revenue collected for a specific purpose (such as HI) and maintained in a separate account for that purpose. The majority of this fund is derived from individual and business income taxes.

**General revenue.** Income to the HI trust fund from the general fund of the Treasury. Only a very small percentage of total HI trust fund income each year is attributable to general revenue.

**Gramm-Rudman-Hollings Act.** The Balanced Budget and Emergency Deficit Control Act of 1985.

**Gross Domestic Product (GDP).** The total dollar value of all goods and services produced in a year in the United States, regardless of who supplies the labor or property.

**High cost alternative.** See "Assumptions."

**Home health agency (HHA).** A public agency or private organization which is primarily engaged in providing skilled nursing services, other therapeutic services, such as physical, occupational, or speech therapy, and home health aide services, in the home.

**Hospice.** A provider of care for the terminally ill; delivered services generally include home health care, nursing care, physician services, medical supplies, and short-term inpatient hospital care.

**Hospital assumptions.** These include differentials between hospital labor and non-labor indices compared to general economy labor and non-labor indices, rates of admission incidence, the trend toward treating less complicated cases in outpatient settings, and continued improvement in DRG coding, etc.

**Hospital coinsurance.** For the 61st through 90th day of hospitalization in a benefit period, a daily amount for which the beneficiary is responsible, equal to one-fourth of the inpatient hospital deductible; for lifetime reserve days, a

daily amount for which the beneficiary is responsible, equal to one-half of the inpatient hospital deductible (see "Lifetime reserve days").

**Hospital input price index.** An alternate name for "hospital market basket."

**Hospital Insurance (HI).** The Medicare program which pays for specified inpatient hospital services, posthospital skilled nursing care, home health services, and hospice care for aged and disabled individuals who meet the eligibility requirements. Also known as Medicare Part A.

**Hospital market basket.** The cost of the mix of goods and services (including personnel costs but excluding nonoperating costs) comprising routine, ancillary, and special care unit inpatient hospital services.

**Incurred basis.** The costs based on when the service was performed rather than when the payment was made.

**Inpatient hospital deductible.** An amount of money which is deducted from the amount payable by Medicare Part A for inpatient hospital services furnished to a beneficiary during a spell of illness.

**Inpatient hospital services.** These services include bed and board, nursing services, diagnostic or therapeutic services, and medical or surgical services.

**Interest.** A payment for the use of money during a specified period.

**Interfund borrowing.** The borrowing of assets by a trust fund (OASI, DI, HI or SMI) from another of the trust funds when one of the funds is in danger of exhaustion.

**Intermediary.** A private or public organization, under contract to the HCFA, to determine costs of and make payments to providers for HI and certain SMI services.

**Intermediate assumptions.** See "Assumptions."

**Lifetime reserve days.** Under HI, there are 60 lifetime reserve days per beneficiary which the beneficiary may opt to use when regular inpatient hospital benefits are exhausted. The beneficiary pays one-half of the inpatient hospital deductible for each lifetime reserve day used.

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**Long-range.** The next 75 years.

**Low cost alternative.** See "Assumptions."

**Market basket.** See "hospital market basket."

**Maximum taxable amount of annual earnings.** See "Contribution base."

**Medicare.** A nationwide, federally administered health insurance program authorized in 1965 to cover the cost of hospitalization, medical care, and some related services for most people over age 65. In 1972 coverage was extended to people receiving Social Security Disability Insurance payments for 2 years, and people with ESRD. Medicare consists of two separate but coordinated programs -- Part A (Hospital Insurance, HI) and Part B (Supplementary Medical Insurance, SMI). Almost all persons aged 65 and over or disabled entitled to HI are eligible to enroll in the SMI program on a voluntary basis by paying a monthly premium. Health insurance protection is available to Medicare beneficiaries without regard to income.

**Military service wage credits.** Credits recognizing that military personnel receive other cash payments and wages in kind (such as food and shelter) in addition to their basic pay. Noncontributory wage credits of \$160 are provided for each month of active military service from September 16, 1940, through December 31, 1956. For years after 1956, the basic pay of military personnel is covered under the Social Security program on a contributory basis. Noncontributory wage credits of \$300 for each calendar quarter in which a person receives pay for military service from January 1957 through December 1977 are granted in addition to contributory credits for basic pay. Deemed wage credits of \$100 are granted for each \$300 of military wages in years after 1977. (The maximum credits allowed in any calendar year are \$1,200.) (See also "Quinquennial military service determinations and adjustments.")

**Modified average-cost method.** Under this system of calculating summary measures, the actuarial balance is defined as the difference between the arithmetic means of the annual cost rates and the annual income rates, with an adjustment included to account for the offsets to cost that are due to (1) the starting trust fund balance and (2) interest earned on the trust fund.

**Net contributions.** The appropriation of employment taxes, less refunds of employment taxes, and deposits arising from State agreements.

**Non-contributory or deemed wage credits.** Wages and wages in kind that were not subject to the HI tax but that are deemed as having been. This is done for the purposes of (1) determining HI program eligibility for individuals who might not be eligible for HI coverage without payment of premium were it not for the deemed wage credits and (2) calculating reimbursement due the HI trust fund from the general fund of the Treasury. The first purpose applies in the case of providing coverage to persons during the transitional periods when the HI program began and when it was expanded to cover Federal employees; both purposes apply in the cases of military service wage credits (see "Military service wage credits" and "Quinquennial military service determinations and adjustments") and deemed wage credits granted for the internment of persons of Japanese ancestry during World War II.

**Old-Age, Survivors, and Disability Insurance (OASDI).** The Social Security programs which pay for (1) monthly cash benefits to retired-worker (old-age) beneficiaries and their spouses and children and to survivors of deceased insured workers (OASI) and (2) monthly cash benefits to disabled-worker beneficiaries and their spouses and children and for providing rehabilitation services to the disabled (DI).

**Part A.** The Medicare Hospital Insurance program.

**Part A premium.** A monthly premium paid by individuals who wish for and are entitled to voluntary enrollment in the Medicare HI program. These individuals are those who are age 65 and older who are uninsured for social security or railroad retirement and do not otherwise meet the requirements for entitlement to Part A. In addition, disabled individuals who have exhausted other entitlement are qualified. These individuals are those not now entitled but who have been entitled under section 226(b) of the Act, continue to have the disabling impairment upon which their entitlement was based, and whose entitlement ended solely because the individuals had earnings that exceeded the substantial gainful activity amount (as defined in section 223(d)(4) of the Act).

**Part B.** The Medicare Supplementary Medical Insurance program.

**Participating hospitals.** Those hospitals who participate in the Medicare program.

**Pay-as-you-go financing.** A financing scheme where taxes are scheduled to produce just as much income as required to pay current benefits, with trust

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fund assets built up only to the extent needed to prevent exhaustion of the fund by random economic fluctuations.

**Payroll taxes.** Taxes levied on the gross wages of workers.

**Peer Review Organization (PRO).** A group of practicing physicians and other health care professionals, paid by the federal government, to review the care given to Medicare patients.

**Present value.** The present value of a future stream of payments is the lump-sum amount that, if invested today, together with interest earnings would be just enough to meet each of the payments as they fell due. At the time of the last payment, the invested fund would be exactly zero.

**Professional Standards Review Organization (PSRO).** The predecessor of the Peer Review Organization.

**Projection error.** Degree of variation between estimated and actual amounts.

**Prospective Payment Assessment Commission (ProPAC).** A commission established by the Social Security Amendments of 1983 to review and recommend the appropriate percentage changes which should be effected for payments for inpatient hospital discharges each fiscal year beginning with fiscal year 1986. Furthermore, the ProPAC is expected to study and make recommendations regarding existing reimbursement policy for each fiscal year.

**Prospective payment system (PPS).** A method of reimbursement for hospitals which was implemented effective with hospital cost reporting periods beginning on or after October 1, 1983. Under this system, Medicare payment is made at a predetermined, specific rate for each discharge. All discharges are classified according to a list of diagnosis-related groups (DRGs).

**Provider.** Any organization, institution, or individual who provides health care services to Medicare beneficiaries. Hospitals (inpatient services), skilled nursing facilities, home health agencies, and hospices are the providers of services covered under Medicare Part A.

**Proxy.** An index of known values that likely approximates an index for which values are unavailable. The proxy is used as a "stand-in" for the unavailable index.

**Quinquennial military service determination and adjustments.** Prior to the Social Security Amendments of 1983, quinquennial determinations (i.e., estimates made once every 5 years) were made of the costs arising from the granting of deemed wage credits for military service prior to 1957; annual reimbursements were made from the general fund of the Treasury to the HI trust fund for these costs. The Social Security Amendments of 1983 provided for (1) a lump-sum transfer in 1983 for (a) the costs arising from the pre-1957 wage credits and (b) the HI taxes on the deemed wage credits for military service for 1966 through 1983, inclusive; (2) quinquennial adjustments to the pre-1957 portion of the 1983 lump-sum transfer; (3) HI taxes on military deemed wage credits for 1984 and later to be credited to the fund on July 1 of each year; and (4) adjustments as deemed necessary to any previously transferred amounts representing HI taxes on military deemed wage credits.

**Railroad retirement.** A federal insurance program similar to Social Security designed for workers in the railroad industry. The provisions of the Railroad Retirement Act provide for a system of coordination and financial interchange between the Railroad Retirement program and the Social Security program.

**Real-wage differential.** The difference between the percentage increases, before rounding, in (1) the average annual wage in covered employment, and (2) the average annual Consumer Price Index.

**Reasonable cost basis.** The calculation to determine the reasonable cost incurred by individual providers when furnishing covered services to beneficiaries. The reasonable cost is based on the actual cost of providing such services, including direct and indirect costs of providers, and excluding any costs which are unnecessary in the efficient delivery of services covered by a health insurance program.

**Self-employment.** Operation of a trade or business by an individual or by a partnership in which an individual is a member.

**Self-Employment Contributions Act (SECA).** Provision authorizing taxes on the net income of most self-employed persons to provide for the OASDI and HI programs.

**Sequester.** The reduction of funds to be used for benefits or administrative costs from a Federal account based on the requirements specified in the Gramm-Rudmann-Hollings Act.

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**Short-range.** The next 10 years.

**Skilled nursing facility (SNF).** An institution which is primarily engaged in providing skilled nursing care and related services for residents who require medical or nursing care, or engaged in rehabilitation of injured, disabled, or sick persons.

**SNF coinsurance.** For the 21st through 100th day of extended care services in a benefit period, a daily amount for which the beneficiary is responsible, equal to 1/8 of the inpatient hospital deductible.

**Social Security Act.** Public Law 74-271, enacted August 14, 1935, with subsequent amendments. The Social Security Act consists of 20 titles, of which four have been repealed. The HI and SMI programs are authorized by Title XVIII of the Social Security Act.

**Special public-debt obligation.** Securities of the United States Government issued exclusively to the OASI, DI, HI, and SMI trust funds and other Federal trust funds. Section 1817(c) of the Social Security Act provides that the public-debt obligations issued for purchase by the HI trust fund shall have maturities fixed with due regard for the needs of the funds. The usual practice in the past has been to spread the holdings of special issues, as of each June 30, so that the amounts maturing in each of the next 15 years are approximately equal. Special public-debt obligations are redeemable at par at any time.

**Spell of illness.** A period of consecutive days beginning with the first day on which a beneficiary is furnished inpatient hospital or extended care services and ending with the close of the first period of 60 consecutive days thereafter in which the beneficiary is in neither a hospital or skilled nursing facility.

**Summarized cost rate.** The ratio of the present value of expenditures to the present value of the taxable payroll for the years in a given period. In this context, the expenditures are on an incurred basis and exclude costs for certain uninsured persons, for whom payments are reimbursed from the general fund of the Treasury, and for voluntary enrollees, who pay a premium in order to be enrolled. The summarized cost rate includes the cost of reaching and maintaining a "target" trust fund level, or contingency fund ratio. Because a trust fund level of about one year's expenditures is considered to be an adequate reserve for unforeseen contingencies, the targeted contingency fund ratio used in determining summarized cost rates is 100 percent of annual

expenditures. Accordingly, the summarized cost rate is equal to the ratio of (a) the sum of the present value of the outgo during the period plus the present value of the targeted ending trust fund level plus the beginning trust fund level, to (b) the present value of the taxable payroll during the period.

**Summarized income rate.** The ratio of (a) the present value of the tax revenues incurred during a given period (from both payroll taxes and taxation of OASDI benefits) to (b) the present value of the taxable payroll for the years in the period.

**Supplementary Medical Insurance (SMI).** The Medicare program, which pays for a portion of the costs of physician's services, outpatient hospital services, and other related medical and health services for voluntarily enrolled aged and disabled individuals. Also known as Medicare Part B.

**Taxable earnings.** Taxable wages and/or self-employment income under the prevailing annual maximum taxable limit.

**Taxable payroll.** A weighted average of taxable wages and taxable self-employment income. When multiplied by the combined employee-employer tax rate, it yields the total amount of taxes incurred by employees, employers, and the self-employed for work during the period.

**Taxable self-employment income.** Net earnings from self-employment, generally above \$400 and below the annual maximum taxable amount for a calendar or other taxable year, less any taxable wages in the same taxable year.

**Taxable wages.** Wages paid for services rendered in covered employment up to the annual maximum taxable amount. In some cases, wages must also be above a specified amount to be taxed and credited (for example, \$50 or more in a calendar quarter from one employer for domestic employment, \$100 or more in a calendar year for employment in a nonprofit organization or for services not in the course of an employer's trade or business).

**Taxation of benefits.** Beginning in 1994, up to 85 percent of an individual's or a couple's OASDI benefits are potentially subject to Federal income taxation under certain circumstances. The revenue derived from taxation of benefits in excess of 50 percent, up to 85 percent, is allocated to the HI trust fund.

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**Taxes.** See "Contributions."

**Test of Actuarial Status.** The overall test of actuarial status for the HI program, which includes a test of Short-Range Financial Adequacy, and a test of Long-Range Close Actuarial Balance.

**Test of Long-Range Close Actuarial Balance.** Summarized income rates and cost rates are calculated for each of the 65 valuation periods in the full 75-year long-range projection period. The first of these periods consists of the next 11 years. Each succeeding period becomes longer by 1 year, culminating with the period consisting of the next 75 years. The long-range test is met if, for each of the 65 time periods, the actuarial balance is not less than zero or is negative by, at most, a specified percentage of the summarized cost rate for the same time period. The percentage allowed for a negative actuarial balance is 5 percent for the full 75-year period and is reduced uniformly for shorter periods, approaching zero as the duration of the time periods approaches the first 10 years. The criterion for meeting the test is less stringent for the longer periods in recognition of the greater uncertainty associated with estimates for more distant years.

**Test of Short-Range Financial Adequacy.** The conditions required to meet this test are as follows: If the trust fund ratio for a fund exceeds 100 percent at the beginning of the projection period, then it must be projected to remain at or above 100 percent throughout the 10-year projection period; alternatively, if the fund ratio is initially less than 100 percent, it must be projected to reach a level of at least 100 percent within 5 years (and not be depleted at any time during this period) and then remain at or above 100 percent throughout the remainder of the 10-year period. This test is applied to trust fund projections made under the intermediate estimate assumptions.

**Trust fund.** Separate accounts in the United States Treasury mandated by Congress whose assets may only be used for a specified purpose. For the HI trust fund, monies not withdrawn for current benefit payments and administrative expenses are invested in interest-bearing Federal securities, as required by law; the interest earned is also deposited in the trust fund.

**Trust fund ratio.** A short-range measure of the adequacy of the trust fund level; defined as the assets at the beginning of the year expressed as a percentage of the outgo during the year.

**Unit input intensity allowance.** The amount added to or subtracted from the hospital input price index to yield the PPS update factor.

**Valuation period.** A period of years which is considered as a unit for purposes of calculating the status of a trust fund.

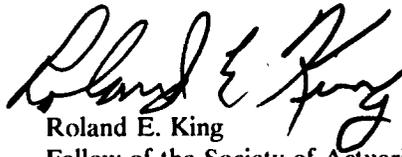
**Voluntary enrollee.** Certain individuals aged 65 or older or disabled, who are not otherwise entitled to Medicare who opt to obtain coverage under Part A by paying a monthly premium.

**Year of exhaustion.** The first year in which a trust fund is unable to pay benefits when due because the assets of the fund are exhausted.

**F. STATEMENT OF ACTUARIAL OPINION**

It is my opinion that (1) the methodology used herein is based upon sound principles of actuarial practice and (2) the assumptions used and the resulting cost estimates are reasonable for evaluating the actuarial and financial status of the Federal Hospital Insurance Trust Fund, taking into account the experience and expectations of the program.

In my opinion, it would be preferable to use the modified average cost method rather than the present-value method to summarize the projections of the HI program. In addition, I have some concern regarding the real earnings assumptions chosen by the Board of Trustees in view of the real earnings growth rates of the last 25 years. As a result, Appendix III.A has been included in the report to provide supplemental information which may be of interest to readers of the report.



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