Actuarial Status of the SMI Trust Fund*

In their annual report, the Board of Trustees for the Supplementary Medical Insurance (SMI) Trust Fund conclude that funds are sufficient to cover projected benefits and administrative costs through December 1990. However, the Board notes that outlays of the program have nearly doubled in the last 5 years. For the same period, the program grew 40 percent faster than the economy as a whole. The Board recommends that Congress continue to work to curtail the rapid growth in the SMI program. This article presents the Executive Summary of the Board's 1990 annual report.

*Adapted from the **1990 Annual Report of the Board of Trustees of the Federal Supplementary Medical Insurance Trust Fund**, April 18, 1990. Copies of the report may be obtained from the Office of the Actuary, Health Care Financing Administration, Room 100, Equitable Building, 1705 Whitehead Road, Baltimore, Maryland 21207.

The Supplementary Medical Insurance (SMI) program pays for physician services, outpatient hospital services, and other medical expenses for both those aged 65 or older and for the long-term disabled. In calendar year 1989, 32.0 million persons were covered under SMI. General revenue contributions during 1989 amounted to $30.9 billion, accounting for 69.6 percent of all SMI income. About 27.7 percent of all income resulted from the premiums paid by the enrollees including the income from the catastrophic coverage monthly premiums. Interest payments to the SMI fund accounted for the remaining 2.7 percent. Of the $39.8 billion in SMI disbursements, $38.3 billion was for benefit payments; the remaining amount was spent for administrative expenses. SMI administrative expenses were 3.7 percent of total disbursements.

The SMI program essentially is yearly renewable term insurance financed from premium income paid by the enrollees and from income contributed from general revenue. This means that the SMI program is financed on an accrual basis with a contingency margin, and therefore, the SMI Trust Fund should always be somewhat greater than the claims that have been incurred by enrollees but not yet paid by the program. The trust fund holds all of the income not currently needed to pay benefits and related expenses. The assets of the fund may not be used for any other purpose; however, they may be invested in certain interest-bearing obligations of the U.S. Government.

Financing for the noncatastrophic portion of the SMI program is established annually on the basis of standard monthly premium rates (paid by or on behalf of all participants) and monthly actuarial rates determined separately for aged and disabled beneficiaries on which general revenue contributions are based. Prior to the 6-month transition period (July 1, 1983 through December 31, 1983), these rates were applicable in the 12-month periods ending June 30. Beginning January 1, 1984, the annual basis was changed to calendar years. Monthly actuarial rates are equal to one-half the monthly amounts necessary to finance the SMI program. These rates determine the amount to be contributed from general revenues on behalf of each enrollee. Based on the formula in the law, the Government contribution effectively makes up the difference between twice the monthly actuarial rates and the standard monthly premium rate. Chart 1 presents these values for financing periods since 1976. This illustration clearly indicates the extent to which general revenue financing is the major source of income for the program.

Financing for the catastrophic portion of the SMI program was established annually by the Medicare Catastrophic Coverage Act of 1988 on the basis of the catastrophic coverage monthly premium rates (paid by or on behalf of all participants) and the supplemental catastrophic coverage premium rates. The enactment of the Medicare Catastrophic Coverage Repeal Act of 1989 repealed the catastrophic coverage monthly premium rates effective January 1, 1990, and the supplemental catastrophic coverage premium rates retroactively to January 1, 1989.

Operations of the SMI Program

Historical and projected operations of the fund through 1992 are shown in tables 1 and 2. As can be seen, income has exceeded disbursements for most of the historical years. The financing for calendar year 1990 was established to maintain assets for the aged and to decrease assets for the disabled while reducing the assets overall. As a result, in calendar year 1990, disbursements are projected to exceed income, and the trust fund balance is projected to decrease through calendar year 1990.

The financial status of the program depends on both total net assets and liabilities. It is, therefore, necessary to examine the incurred experience of the program, because it is this experience that is used to determine the actuarial rates discussed above and that forms the basis of the concept of actuarial soundness as it relates to the SMI program.

Actuarial Soundness of the SMI Program

The concept of actuarial soundness, as it applies to the SMI program, is closely related to the concept as it applies to private group insurance. The SMI program is essentially yearly renewable term insurance financed from premium income paid by the enrollees, from income contributed from general revenue, and from interest payments on the trust fund assets.

In testing the actuarial soundness of the SMI program, it is not appropriate to look beyond the period for which the enrollee premium rates and level of general revenue financing have been established. The primary tests of actuarial soundness, then, are that: (1) assets and income for years for which financing has been established be sufficient to meet the projected benefits and associated administrative expenses incurred for that period and (2) assets be sufficient to cover projected liabilities that will have been incurred by the end of that time but will not have been paid yet. Even if these tests of actuarial soundness are not met, the program can continue to operate if the trust fund remains at a level adequate to permit the payment of claims as presented. However, to protect against the possibility that cost increases under the program will be higher than assumed, assets should be sufficient to cover the impact of a moderate degree of variation between actual costs and projected costs.

The primary tests for actuarial soundness and trust fund adequacy can be viewed by direct examination of absolute dollar levels. In providing an appropriate contingency or margin for variation, however, there must also be some relative measure. The relative measure or ratio used for this purpose is the ratio of the assets less liabilities to the following year's incurred expenditures. Chart 2 shows this ratio for historical years and for projected years under the intermediate assumptions (Alternative B), as well as high (pessimistic) and low (optimistic) cost sensitivity scenarios.

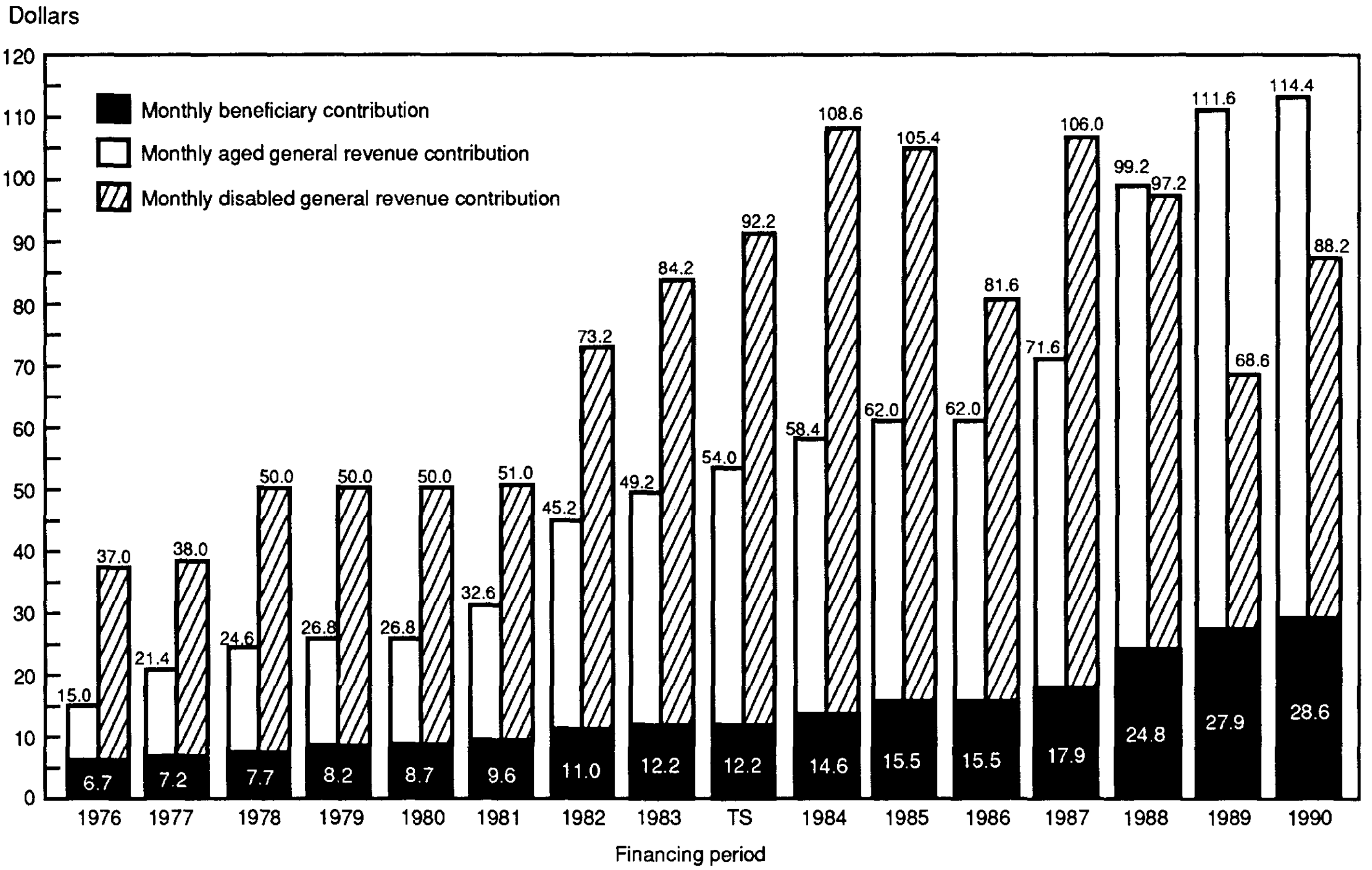
Financing calendar year 1990 was established to maintain assets for the aged and to decrease assets for the disabled while reducing the overall relative level of the excess of assets over liabilities. In addition, the Omnibus Budget Reconciliation Act of 1989 was enacted on December 19, 1989, after the financing had been established for calendar year 1990. As a net result, the excess of assets over liabilities is expected to decrease by December 31, 1990.

Conclusion of the Board of Trustees

The financing established through December 1990 is sufficient to cover projected benefits and administrative costs through that time period. This financing is sufficient to maintain a level of trust fund assets that is adequate to cover the impact of a moderate degree of variation between actual costs and projected costs. The SMI program can thus be said to be actuarially sound.

Although the SMI program is financially sound, the Board notes with concern the rapid growth in the cost of the program. Growth rates have been so rapid that outlays of the program have nearly doubled in the last 5 years. For the same time period, the program grew 40 percent faster than the economy as a whole. This growth rate shows no sign of significantly abating despite recent efforts to control the cost of the program. The Board recommends that Congress continue to work to curtail the rapid growth in the SMI program.

Chart 1. — SMI monthly per capita income



Financing Period:

For periods 1983 and earlier, the financing period is July 1 through June 30.

Transitional semester (TS), the financing period is July 1, 1983 through December 31, 1983.

For 1984 through 1990 the financing period is January 1 through December 31.

*The amounts shown do not include the catastrophic coverage monthly premium rate for 1989.

Table 1.—Estimated progress of Supplementary Medical Insurance Trust Fund (cash basis) fiscal years 1990–92 and actual data for 1967–89

[In millions]

Fiscal year [1]	Income: Total income	Income: Premiums from enrollees	Income: Government contributions [2]	Income: Interest and other income [3]	Disbursements: Total disbursements	Disbursements: Benefit payments	Disbursements: Administrative expenses	Balance in fund at end of year [4]
	Historical							
1967	$1,285	$647	$623	$15	$799	$664	[5] $135	$486
1968	1,353	698	634	21	1,532	1,390	142	307
1969	1,911	903	984	24	1,840	1,645	195	378
1970	1,876	936	928	12	2,196	1,979	217	57
1971	2,516	1,253	1,245	18	2,283	2,035	248	290
1972	2,734	1,340	1,365	29	2,544	2,255	289	481
1973	2,902	1,427	1,430	45	2,637	2,391	246	746
1974	3,809	1,704	2,029	76	3,283	2,874	409	1,272
1975	4,322	1,887	2,330	105	4,170	3,765	405	1,424
1976	4,994	1,951	2,939	104	5,200	4,672	528	1,219
T.Q.	1,421	539	878	4	1,401	1,269	132	1,239
1977	7,383	2,193	5,053	137	6,342	5,867	475	2,279
1978	9,045	2,431	6,386	228	7,356	6,852	504	3,968
1979	9,839	2,635	6,841	363	8,814	8,259	555	4,994
1980	10,275	2,928	6,932	415	10,737	10,144	593	4,532
1981	12,439	3,320	8,747	372	13,228	12,345	883	3,743
1982	17,627	3,831	13,323	473	15,560	14,806	754	5,810
1983	19,147	4,227	14,238	682	18,311	17,487	824	6,646
1984	22,525	4,907	16,811	807	20,372	19,473	899	8,799
1985	24,577	5,524	17,898	1,155	22,730	21,808	922	10,646
1986	25,003	5,699	18,076	1,228	26,218	25,169	1,049	9,432
1987	27,797	6,480	20,299	1,018	30,837	29,937	900	6,392
1988	35,002	8,756	25,418	828	34,947	33,682	1,265	6,447
1989	[6] 43,282	[6] 11,548	30,712	[6] 1,022	[6] 38,317	36,867	[6] 1,450	[6] 11,412
	Projected							
Alternative A								
1990	[6] $45,534	[6] $11,380	$32,879	[6] $1,275	[6] $43,981	$42,502	[6] $1,479	[6] $12,965
1991	48,361	11,617	35,477	1,267	48,748	47,226	1,522	12,578
1992	54,522	12,250	41,120	1,152	55,777	54,170	1,607	11,323
Alternative B								
1990	[6] 45,534	[6] 11,380	32,879	[6] 1,275	[6] 43,981	42,502	[6] 1,479	[6] 12,965
1991	48,367	11,617	35,483	1,267	48,755	47,236	1,519	12,577
1992	54,583	12,279	41,152	1,152	55,830	54,229	1,601	11,330

[1] For 1967 through 1976, fiscal years cover the interval from July 1 through June 30; the 3-month interval from July 1, 1976 through September 30, 1976, is labeled "T.Q.," the transition quarter; fiscal years 1977–92 cover the interval from October 1 through September 30.

[2] The payments shown as being from the general fund of the Treasury include certain interest-adjustment items.

[3] Other income includes recoveries of amounts reimbursed from the trust fund that are not obligations of the trust fund and other miscellaneous income.

[4] The financial status of the program depends on both the total net assets and the liabilities of the program.

[5] Administrative expenses shown include those paid in fiscal years 1966 and 1967.

[6] Includes the impact of the Medicare Catastrophic Coverge Act of 1988 (Public Law 100–360).

Table 2.—Estimated progress of Supplementary Medical Insurance Trust Fund (cash basis) calendar years 1990-92 and actual data for 1966-89

[In millions]

Calendar year	Income: Total income	Income: Premiums from enrollees	Income: Government contributions [1]	Income: Interest and other income [2]	Disbursements: Total disbursements	Disbursements: Benefit payments	Disbursements: Administrative expenses	Balance in fund at end of year [3]
	Historical							
1966	$324	$322	$0	$2	$203	$128	$75	$122
1967	1,597	640	933	24	1,307	1,197	110	412
1968	1,711	832	858	21	1,702	1,518	184	421
1969	1,839	914	907	18	2,061	1,865	196	199
1970	2,201	1,096	1,093	12	2,212	1,975	237	188
1971	2,639	1,302	1,313	24	2,377	2,117	260	450
1972	2,808	1,382	1,389	37	2,614	2,325	289	643
1973	3,312	1,550	1,705	57	2,844	2,526	318	1,111
1974	4,124	1,804	2,225	95	3,728	3,318	410	1,506
1975	4,673	1,918	2,648	107	4,735	4,273	462	1,444
1976	5,977	2,060	3,810	107	5,622	5,080	542	1,799
1977	7,805	2,247	5,386	172	6,505	6,038	467	3,099
1978	9,056	2,470	6,287	299	7,755	7,252	503	4,400
1979	9,768	2,719	6,645	404	9,265	8,708	557	4,902
1980	10,874	3,011	7,455	408	11,245	10,635	610	4,530
1981	15,374	[4] 3,722	[4] 11,291	361	14,028	13,113	915	5,877
1982	16,580	[4] 3,697	[4] 12,284	599	16,227	15,455	772	6,230
1983	19,824	4,236	14,861	727	18,984	18,106	878	7,070
1984	23,180	5,167	17,054	959	20,552	19,661	891	9,698
1985	25,106	5,613	18,250	1,243	23,880	22,947	933	10,924
1986	24,665	5,722	17,802	1,141	27,299	26,239	1,060	8,291
1987	31,844	[5] 7,409	[5] 23,560	875	31,740	30,820	920	8,394
1988	35,825	[5] 8,761	[5] 26,203	861	35,230	33,970	1,260	8,990
1989	[6] 44,334	[6] 12,263	30,852	[6] 1,219	[6] 39,783	38,294	[6] 1,489	[6] 13,541
	Projected							
Alternative A								
1990	$44,865	$11,125	$32,455	$1,285	$45,103	$43,643	$1,460	$13,303
1991	49,482	11,781	36,485	1,216	50,481	48,938	1,543	12,304
1992	56,146	12,406	42,664	1,076	57,490	55,862	1,628	10,960
Alternative B								
1990	44,865	11,125	32,455	1,285	45,103	43,643	1,460	13,303
1991	49,489	11,781	36,492	1,216	50,495	48,956	1,539	12,297
1992	56,226	12,445	42,705	1,076	57,562	55,940	1,622	10,961

[1] The payments shown as being from the general fund of the Treasury include certain interest-adjustment items.

[2] Other income includes recoveries of amounts reimbursed from the trust fund which are not obligations of the trust fund and other miscellaneous income.

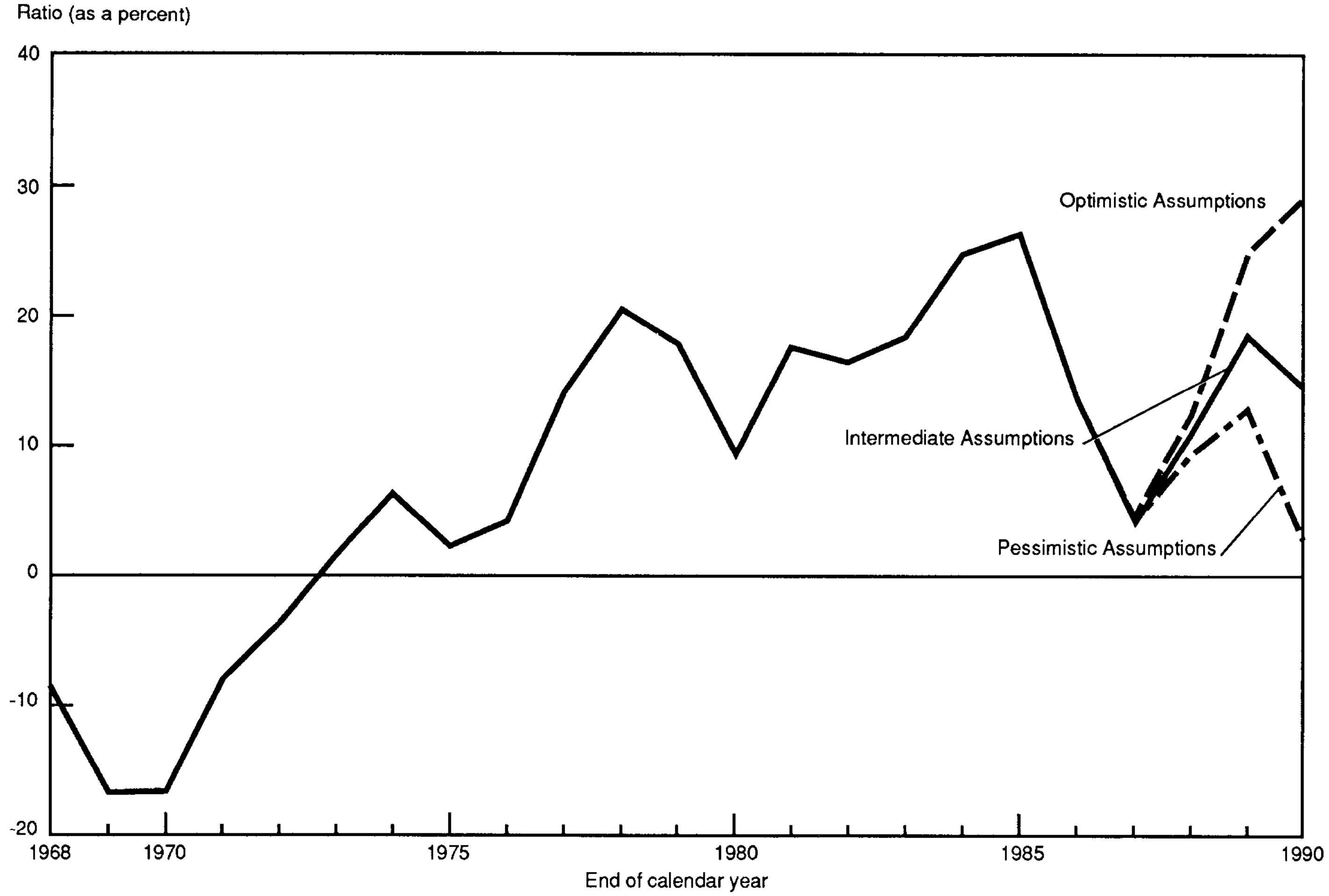
[3] The financial status of the program depends on both the total net assets and the liabilities of the program.

[4] Section 708 of Title VII of the Social Security Act modified the provisions for the delivery of Social Security benefit checks when the regularly designated delivery day falls on a Saturday, Sunday, or legal public holiday. Delivery of benefit checks normally due January 1982 occurred on December 31, 1981. Consequently, the SMI premiums withheld from the checks ($264 million) and the general revenue matching contributions ($883 million) were added to the SMI Trust Fund on December 31, 1981. These amounts are excluded from the premium income and general revenue income for calendar year 1982.

[5] Delivery of benefit checks normally due January 1988 occurred on December 31, 1987. Consequently, the SMI premiums withheld from the checks ($692 million) and the general revenue matching contributions ($2,178 million) were added to the SMI Trust Fund on December 31, 1987. These amounts are excluded from the premium income and general revenue income for calendar year 1988. (Refer to footnote 4.)

[6] Includes the impact of the Medicare Catastrophic Coverage Act of 1988 (Public Law 100-360).

Chart 2.— Actuarial status of the SMI Trust Fund



Note: The actuarial status of the SMI Trust Fund is measured by the ratio of the end of year surplus or deficit to the following year incurred expenditures.