Financing Basis of Old-Age, Survivors, and Disability Insurance and Health Insurance Under the 1967 Amendments

THE AMENDMENTS TO THE Social Security Act passed in 1967 (Public Law 90-248) made several changes in the old-age, survivors, disability, hospital, and supplementary medical insurance system. Some of these changes affected significantly the actuarial status of the system. The principles used to determine the financing stability of the program were not altered, however. This article discusses the financial effect of these changes, as well as the actuarial status of the system after the amendments. The first part of the article deals with the cash benefits program, old-age, survivors, and disability insurance (OASDI); the second part pertains to hospital insurance (HI) and the third to supplementary medical insurance (SMI).

OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE

The cost aspects of any proposed changes in the OASDI program have always received careful study by Congress. In the 1950 amendments, Congress expressed its conviction that the program should be completely self-supporting from the contributions of covered individuals and employers, and it repealed the provision permitting appropriations to the system from the general revenue of the Treasury. In all major legislation since 1950, including the 1967 amendments, Congress has indicated the intent that the tax schedule make the program as self-supporting as possible and actuarially sound.

Actuarial soundness does not have precisely the same meaning for OASDI as for private insurance companies and, to some extent, for private

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pension plans. With respect to individual insurance, the private insurance company to be actuarially sound must, in general, have sufficient funds on hand to pay off all accrued liabilities if operations are terminated. This is not a necessary basis for a national compulsory social insurance program, nor is it always necessary for a well-administered private pension plan.

The national program can be expected to continue indefinitely, and the test is whether the expected future income from taxes and from interest on invested assets will be sufficient to meet anticipated expenditures for benefits and administrative costs. Though future experience may vary from the actuarial cost estimates, the intent that the program be self-supporting and actuarially sound can be expressed in law by a contribution schedule that, according to the intermediate-cost estimate, brings the program into approximate balance.

Following the recommendations of the 1963-64 Advisory Council on Social Security Financing, the long-range basis of the financing was changed from perpetuity to a 75-year period. Beginning with the year 1964, all estimates have been prepared on this 75-year basis.

ACTUARIAL BALANCE, 1950-67

The actuarial balance of the OASDI system is measured in relation to effective taxable payroll (referred to hereafter as "payroll"). "Payroll" means the total earnings of all covered workers, reduced to take into account both the maximum taxable earnings base and the fact that the contribution rate for the self-employed is lower than the combined employer-employee rate. In this way, the actuarial balance of the system is expressed as an equivalent combined employer-employee tax rate on earnings not in excess of the maximum taxable base and represents the

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¹ For a summary and legislative history of the 1967 amendments, see pages 3-19 of this issue.

differences between the benefit costs and the level contribution rate.

At the time the 1952 amendments were passed, it was believed that the 1950-52 rise in earnings levels would offset the higher cost resulting from the benefit liberalizations and that the actuarial balance would be the same as that estimated for the 1950 act (table 1). Cost estimates made in 1954 indicated, however, that the level-cost (the average long-range cost, based on discounting at interest, in relation to payroll) was somewhat more than 0.5 percent of payroll higher than the level-equivalent of the scheduled taxes, including allowance for interest on the existing trust fund. The actuarial insufficiency in the 1952 act was substantially reduced by the 1954 legislation, which provided for an increase in the contribution schedule that also met all the additional cost of the benefit changes.

The estimates for the 1954 act were revised in 1956 to take into account the rise in the earnings level since 1951 and 1952, the 2-year base period that had been used for the earnings assumption in the 1954 estimates. The lack of actuarial balance under the 1954 act was thus reduced to the point where, for all practical purposes, it was nonexistent. Since the benefit changes made by the 1956 amendments were fully financed by the increased contribution income provided, the program's actuarial balance was not affected.

In cost estimates made in early 1958, the program was found to be out of actuarial balance by somewhat more than 0.4 percent of payroll. The large number of retirements among the groups newly covered by the 1954 and 1956 legislation had resulted in higher benefit expenditures than those estimated, and the average retirement age had dropped significantly, probably in part because of the liberalizations of the retirement test. The 1958 amendments recognized this situation and provided additional financing, both to reduce the lack of actuarial balance and to finance certain benefit liberalizations.

As a basis for the revised cost estimates made in 1958 for the disability insurance program, certain modified assumptions that recognized the emerging experience were made. As a result, the moderate actuarial surplus originally estimated was increased somewhat; most of the increase was used in the 1958 amendments to finance certain benefit liberalizations.

Table 1.—Old-age, survivors, and disability insurance: Actuarial balance under various acts and for various estimates, intermediate-cost basis

| | [Percent] | | | |
|---|----------------|-------------------------------|---------------------|------------------------|
| | Date | Lev | el-equival | ent i |
| Legislation | of estimate | Benefit costs ² | Contri- butions | Actuarial balance 3 |
| | | OAS | DI 4 | · |
| 1950 act | 1950 1952 | 6.20 5.49 | 6.10 5.90 | -0.10 +.41 |
| 1952 act | 1952 | 6.00 | 5.90 | 10 |
| 1952 act | 1954 | 6.62 | 6.05 | 57 |
| 954 act | 1954 | 7.50 | 7.12 | 38 |
| 954 act | 1956 1956 | $7.45 \\ 7.85$ | $7.29 \\ 7.72$ | 16 13 |
| 956 act | 1958 | 8.25 | 7.83 | 45 |
| 958 act | 1958 | 8.76 | 8.52 | 24 |
| 958 act | 1960 | 8.73 | 8.68 | 0 |
| 960 act 961 act | 1960 1961 | 8.98 9.35 | 8.68 9.05 | 30 30 |
| 961 act | 1963 | 9.33 | 9.02 | 3i |
| 961 act (perpetuity basis) | 1964 | 9.36 | 9.12 | 24 |
| 961 act (75-year basis) | 1964 | 9.09 | 9.10 | +.01 |
| 965 act | 1965 1966 | 9.49 8.76 | $9.42 \\ 9.50$ | 07 |
| 967 act | 1967 | 9.72 | 9.73 | \ |
| | | OA | sı ' | l |
| 956 act956 act | 1956 1958 | 7.43 7.90 | $\frac{7.23}{7.33}$ | -0.20 57 |
| 958 act | 1958 | 8.27 | 8.02 | 37 25 |
| 958 act | 1960 | 8.38 | 8.18 | 20 |
| 960 act | 1960 | 8.42 | 8.18 | 24 |
| 961 act961 act | 1961 1963 | 8.79 8.69 | $8.55 \\ 8.52$ | 24 17 |
| 961 act (perpetuity basis) | 1964 | 8.72 | 8.62 | 10 |
| 961 act (75-year basis) | 1964 | 8.46 | 8.60 | +.14 |
| 965 act | 1965 | 8.82 | 8.72 | 16 |
| 965 act | 1966 1967 | 7.91 8.77 | 8.80 8.78 | $^{+.89}_{+.01}$ |
| | | Di | [4 | |
| 956 act | 1956 | 0.42 | 0.49 | +0.07 |
| 956 act | 1958 | .35 | . 50 | +.15 |
| 958 act | 1958 1960 | .49 | .50 | $^{+.01}_{+.15}$ |
| 960 act | 1960 | .56 | .50 | 06 |
| 961 act | 1961 | . 56 | . 50 | 06 |
| 961 act | 1963 | .64 | .50 | 14 14 |
| 961 act (perpetuity basis) 961 act (75-year basis) | 1964 1964 | .64 | . 50 . 50 | 14 13 |
| 965 act | 1965 | .67 | .70 | +.03 |

¹ Expressed as a percentage of effective taxable payroll, including adjustment to reflect the lower contribution rate on self-employment income and on tips, as compared with the combined employer-employee rate. Estimates prepared before 1964 are on a perpetuity basis, while those prepared after 1964 are on a 75-year basis. The estimates prepared in 1964 are on both bases. 2 Including adjustments (a) for the interest earnings on the existing trust fund, (b) for administrative expense costs, and (c) for the net cost of the financial interchange with the railroad ratingment system.

1966

1965 act_____

1967 act....

.63 .67 .85

financial interchange with the railroad retirement system.

³ A negative figure indicates the extent of lack of actuarial balance.

positive figure indicates more than sufficient financing, according to the particular estimate.

4 The disability insurance program was inaugurated in the 1956 act so that all figures for previous legislation are for the old-age and survivors insurance program only.

The cost estimates for OASDI were reexamined at the beginning of 1960 and modified in certain respects. The earnings assumption was changed to reflect the 1959 level, and revised assumptions were made for the disability insurance portion of the program on the basis of newly available data. It was found that the number of persons

meeting the insured-status conditions for disability benefits had been significantly overestimated and that the disability incidence rates with respect to eligible women were considerably lower than had been originally estimated.

The changes made by the 1961 amendments involved higher costs, and this rise was fully met by changes in the scheduled contribution rates. As a result the actuarial balance of the program remained unchanged.

Subsequently the cost estimates were further reexamined in the light of the developing experience. The average amount of taxable earnings was moved to the 1963 level, the interest rate was increased to reflect recent experience and the retirement rates were modified upward to conform to the experience. The disability insurance portion of the program was found to be in an unsatisfactory financial position because benefits were not being terminated by death or recovery as rapidly as had been originally estimated. At the same time the financing of the old-age and survivors insurance portion was found to be somewhat improved.

The changes made by the 1965 amendments involved an increased cost that was closely met by the changes in their financing provisions (namely, an increase in the contribution schedule, particularly in the later years, and an increase in the earnings base). The actuarial balance of the total program remained virtually unchanged, while a reallocation of contributions to the DI trust fund made both portions of the program actuarially sound.

In 1966, the cost estimates for the old-age, survivors, and disability insurance system were completely revised, on the basis of new data since the last evaluation that was made in 1963. The new estimates showed significantly lower costs for the old-age and survivors insurance portion of the system, but higher costs for the disability insurance portion. The factors leading to lower costs were as follows: (1) 1966 earnings levels, instead of 1963 ones; (2) an interest rate of 33/4 percent for the intermediate-cost estimate, instead of $3\frac{1}{2}$ percent; (3) an assumption of greater future participation of women in the labor force (resulting in reduction in the cost of the program because of the "antiduplication of benefits" provision between women's primary benefits and wife's or widow's benefits); (4) an assumption

of less improvement in future mortality than had previously been assumed; and (5) an assumption that, despite a significant decline in future fertility rates, such decline would not occur as rapidly as had been assumed previously.

The cost of the disability insurance system was estimated to be significantly higher, as a result of increasing the assumed disability prevalence rates. The change was necessary to reflect the substantially larger number of disability beneficiaries coming on the rolls with respect to disabilities occurring in 1964 and after. This experience was not available in 1965 when the cost estimates for the legislation of that year were considered.²

Both the Committee on Ways and Means of the House of Representatives and the Senate Committee on Finance, in reporting on the 1967 legislation3 stated their belief that it is a matter for concern if the OASDI system shows any significant actuarial insufficiency-more than 0.10 percent of payroll. (Before the change to a 75year basis, this limit of variation was taken at 0.30 percent.) Whenever the actuarial insufficiency has exceeded the accepted limits, any subsequent liberalizations in benefit provisions have been fully financed by appropriate changes in the tax schedule or through other methods, and at the same time the actuarial status of the program has been improved. The changes provided in the 1967 amendments are in conformity with these principles.

BASIC ASSUMPTIONS FOR COST ESTIMATES

Because of such factors as the aging of the population and the slow but steady growth of the benefit rolls, benefit disbursements may be expected to increase continuously for at least the next 50–70 years. Similar factors are inherent in any retirement program, public or private, that has been in operation for a relatively short period. Estimates of the future cost of the OASDI program are also affected by many elements that are

² For more details on these revised cost estimates for the old-age, survivors, and disability insurance system, see Actuarial Study No. 63, Office of the Actuary, Social Security Administration, January 1967.

³ House Report No. 544 and Senate Report No. 744, 90th Congress, 1st session.

difficult to determine. The assumptions used in the actuarial cost estimates may therefore differ widely and yet be reasonable.

The long-range estimates are presented in a range to indicate plausible variations in future costs. Both the low- and high-cost estimates are based on high economic asumptions, intended to represent close to full employment, with average annual earnings at about the 1966 level. The intermediate-cost estimates, developed by averaging the low- and high-cost estimates, indicate the basis for the financing provisions.

Costs are shown, in general, as percentages of payroll—the best measure of the program's financial cost. Dollar figures alone are misleading. A higher earnings level, for example, will increase not only the program's outgo but also—and to a greater extent—its income, with the result that cost in relation to payroll will decrease.

For the short range cost, only a single estimate is considered necessary. A gradual rise in the earnings level, paralleling that of the past few years, is assumed. As a result, contribution income is somewhat higher than if level earnings were assumed, but benefit outgo is only slightly affected.

An important measure of long-range cost is the equivalent level contribution rate required to support the program for the next 75 years, based on discounting at interest. Adoption of such a level rate would result in relatively large accumulations in the old-age and survivors insurance trust fund and, eventually, sizable income from interest. Even though such a method of financing is not followed, the concept may be used as a convenient measure of long-range costs, especially in comparing various possible alternative plans, since it takes into account the heavy deferred benefit costs.

The long-range estimates are based on levelearnings assumptions, although covered payrolls are assumed to rise steadily during the next 75 years with the growth in the population of working age. If in the future the earnings level should be considerably above that which now prevails, and if the benefits are adjusted upward so that the annual costs in relation to payroll remain the same as those now estimated for the present system, then the increased dollar outgo that results will offset the increased dollar income. This is an important reason for considering costs in relation to payroll rather than in dollar amounts. Although a rise in earnings levels has characterized the past, the long-range estimates have not taken the possibility of such a rise into account. If such an assumption were used, along with the unlikely assumption that the benefits would not be changed, the cost in relation to payroll would, of course, be lower.

The possibility that a rise in earnings levels will produce lower costs in relation to payroll is an important "safety factor" in the system's financial operations. The financing of the system is based essentially on the intermediate-cost estimate, along with the assumption of level earnings; if experience follows the high-cost assumption, additional financing will be necessary. If covered earnings do increase in the future as in the past, the resulting reduction in program costs (expressed as a percentage of taxable payroll) will more than offset the higher cost under experience following the high-cost estimate. If the latter condition prevails, the reduction in the relative cost of the program coming from rising earnings levels can be used to maintain the actuarial soundness of the system, and any remaining savings can be used to adjust benefits upward (although to a lesser degree than the increase in the earnings level).

If benefits are adjusted currently to keep pace with rising earnings trends as they occur, the year-by-year costs as a percentage of payroll would be unaffected. The level-premium cost, however, would be higher, since the relative importance of the interest earned by the trust funds would gradually diminish with the passage of time. If earnings do consistently rise, the financing basis of the system must be given thorough consideration because the proportion of the benefit costs met by the interest receipts would be less than anticipated under the assumption that the earnings level would not rise.

The costs of OASDI are affected by amendments made to the Railroad Retirement Act in 1951. Under these amendments, railroad retirement compensation and the earnings covered under OASDI are combined in determining benefits for workers with fewer than 10 years of railroad service and for all survivor claimants. Under the financial interchange provisions adopted at the same time, the old-age and survivors insurance trust fund and the disability in-

surance fund are to be maintained in the same financial position in which they would have been if railroad employment had always been covered by the Social Security Act. It is estimated that in the long run the net effect will be a relatively small loss to the OASDI system since the reimbursements from the railroad retirement system will be somewhat smaller than the net additional benefits paid on the basis of railroad earnings.

Program costs are also affected by the 1956 legislation that provided for reimbursement from general revenues for past and future expenditures with respect to the noncontributory credits that had been granted for persons in military service before 1957. The long-range and short-range cost estimates reflect the effect of these reimbursements (included as contributions).

Under the 1965 amendments, individuals in active military service after 1967 will receive additional wage credits in excess of their cash pay (but within the maximum creditable earnings base) in recognition of their remuneration that is payable in kind (quarters and meals, for example). These additional credits are, in essence, at the rate of \$100 per month. The additional costs that arise from these credits are to be financed from general revenues on an "actual disbursements cost" basis.

Under the amendments passed in 1966, certain uninsured individuals aged 72 or over are eligible to receive special monthly benefits. The cost of these benefits to the trust funds (including administrative expenses) are reimbursed from general revenues. The short-range cost estimates presented in this article reflect these transactions. Similarly, they reflect the transactions with respect to the noncontributory additional \$100 monthly credits for post-1967 military service. The long-range cost estimates do not, however, reflect either of these two types of transactions. Because of the full-cost nature of the reimbursement from general revenues, neither of them has any long-range effect on the trust funds.

INTERMEDIATE-COST ESTIMATES

The long-range intermediate-cost estimates are developed from the low- and high-cost estimates by averaging the dollar estimates and then developing the corresponding estimates in relation to payroll. The intermediate-cost estimate is not presented as the most probable estimate but rather as a convenient, single set of figures to use for comparative purposes.

Because Congress believes that the OASDI program should be on a completely self-supporting basis, a single estimate is necessary in the development of a tax schedule. No schedule can be expected to obtain exact balance between contributions and benefits. Development of a specific schedule does, however, make the intention clear, even though in actual practice future changes in the tax schedule may be required. Similarly, exact self-support cannot be obtained from a specified set of integral or rounded fractional tax rates increasing in orderly intervals, but this principle of self-support is aimed at as closely as possible.

The combined employer-employee rate for OASDI is lower under the 1967 Act than under the 1965 Act during the early years (1968–70) and higher thereafter (table 2), with a resulting average increase of 0.23 percent of taxable payroll. The increased schedule of contributions will be applied to a maximum earnings base of \$7,800 instead of the \$6,600 under the previous law. The allocation to the disability insurance portion of the program is also changed by the 1967 amendments, from 0.70 percent of taxable payroll to 0.95 percent, thus improving the financial situation of the disability insurance trust fund.

The interest rate used in the latest valuation of the 1965 act was 3.75 percent. The same rate was retained for the cost estimates of the 1967 amendments.

Table 3 traces the change in the actuarial balance of the system from its situation under the 1965 act, according to the latest estimate, to that under the 1967 amendments, by type of major changes involved.

Table 2.—Old-age, survivors, and disability insurance: Contribution rate schedule under the acts of 1965 and 1967

| Calendar year | Combined employ | | Self-employed rate | | |
|---------------|--------------------|--------------------|-----------------------|------------|--|
| · | 1965 act | 1967 act | 1965 act | 1967 act | |
| 1967 1968 | 7.8 7.8 | 7.8 7.6 | 5.9 5.9 | 5. 5. | |
| 1969-70 | 8.8 | 8.4 | 6.6 | 6. | |
| 1971-72 | 8.8 9.7 | $\frac{9.2}{10.0}$ | 6.6 7.0 | 6.9 7.0 | |

Table 3.—Old-age, survivors, and disability insurance system: Changes in actuarial balance expressed in terms of estimated level-cost as percentage of taxable payroll, by type of change, intermediate-cost estimate, 1965 act and 1967 act, based on 3.75 percent interest

| | cent | |
|--|------|--|
| | | |

| Item | OASI | DI | Total system |
|--|-------------------|--------------------|---|
| Actuarial balance, 1965 act | +0.89 | -0.15 | +0.74 |
| Increase in earnings base | + .25 06 03 | +.02 (1) (2) | +.27 06 03 |
| Special disability insured status under age 31Liberalized benefits with respect to women | (2) | 02 | 02 |
| workers | 07 95 02 | (1) 10 +.25 | $ \begin{array}{r}07 \\ -1.05 \\ +.23 \end{array} $ |
| Total effect of changes | 88 | +.15 | 73 |
| Actuarial balance under 1967 act | +.01 | .00 | +.01 |

¹ Less than 0.005 percent.

As indicated previously and as shown by table 1, according to the latest cost estimates for the 1965 act, there was a very favorable actuarial balance in the combined OASDI system of 0.74 percent of taxable payroll, although the DI portion ad a significant deficit of 0.15 percent. A large part of the liberalizations contained in the 1967 mendments will be financed by this favorable actuarial balance. The remainder will be financed by the increase in the contribution schedule and by the increase in the maximum taxable earnings base.

It is significant that in the 1950 law and in all amendments since that time, Congress did not recommend a high, level tax rate in the future but rather an increasing schedule, which, of necessity, ultimately rises higher than the level rate. Since this graded tax schedule will produce a considerable excess of income over outgo for many years, a sizable trust fund will develop; the fund will, however, be smaller than it would have been under a level tax rate. This fund, like the trust funds of the civil-service retirement, railroad retirement, national service life insurance, and U.S. Government life insurance systems, will be invested in Government securities. The resulting interest income will help to meet part of the higher benefit costs of the future.

According to the latest intermediate-cost estimate, the level-premium cost of the old-age and survivors insurance benefits (excluding administrative expenses and the effect of interest earnings on the existing trust fund) under the 1965

Table 4.—Old-age, survivors, and disability insurance system: Estimated level-cost of benefit payments, administrative expenses, and interest earnings on existing trust fund under 1967 act, as percentage of taxable payroll, by type of benefit, intermediate-cost estimate at 3.75 percent interest

[Percent]

| Item | OASI | DI |
|---|------|------------------|
| Primary benefits | 6.03 | 0.78 |
| Wife's and husband's benefits | . 50 | .0 |
| Widow's and widower's benefits | 1.27 | (2) (2) |
| Parent's benefits | .01 | (2) |
| Child's benefits | . 73 | .14 |
| Mother's benefits | .13 | (2) |
| Lump-sum death payments | .09 | (²) |
| Total | 8.76 | .9- |
| Administrative expenses | . 12 | .03 |
| Railroad retirement financial interchange | .04 | .00 |
| Interest on existing trust fund 3 | 15 | 0 |
| Net total level-cost | 8.77 | .9 |

¹ Including adjustment to reflect the lower contribution rate on selfemployment income and on tips, as compared with the combined employeremployee rate.

² This type of benefit is not payable under this program.

act was about 7.9 percent of payroll, and under the 1967 act it is about 8.8 percent. The corresponding figures for the disability insurance benefits are 0.83 percent and 0.94 percent.

Table 4 presents the estimated benefit costs for the OASDI system as it is under the 1967 amendments, separately for each of the various types of benefits.

Income and Outgo in Near Future

As a result of the 1967 act, the OASDI benefit disbursements will increase by about \$2.9 billion in the calendar year 1968. Most of this additional amount results from the 13-percent increase in benefits. In the calendar year 1969, when all the changes will be in full operation, the benefits will be an estimated \$3.7 billion higher than they otherwise would have been. For 1968, the increase in the earnings base will more than offset the decrease in the tax rate, and the contributions collected will be higher by about \$600 million than they would have been.

Under the amended act the old-age and survivors insurance trust fund is expected to increase by about \$1.1 billion in calendar year 1968 and then to increase substantially each year in the future (table 5), reaching \$46 billion in 1972.

The disability insurance trust fund (table 6) is expected to increase substantially in every year in the future, reaching \$6.5 billion in calendar year 1972.

² Not applicable to this program.

³ This item includes reimbursement for additional cost of noncontributory credit for military service and is taken as an offset to the benefit and administrative expense costs.

Table 5.—Old-age and survivors insurance: Progress of trust fund, short-range cost estimate (In millions)

| Calendar year | Contri- butions | Benefit pay- ments | Adminis- trative expenses | Railroad retire- ment financial inter- change 1 | Interest on fund ² | Balance in fund at end of year ³ | | | | |
|--|--|--|--|--|--|--|--|--|--|--|
| | | Actual data | | | | | | | | |
| 1951 1952 1953 1954 1955 1956 1957 | \$3,367 3,819 3,945 5,163 5,713 6,172 6,825 7,566 | \$1,885 2,194 3,006 3,670 4,968 5,715 7,347 8,327 | \$81 88 88 92 119 132 4 162 4 194 | -\$21 -7 -5 -2 124 | \$417 365 414 447 454 526 556 552 | \$15,540 17,442 18,707 20,576 21,663 22,519 22,393 21,864 | | | | |
| 1959 | 8,052 | 9,842 | 184 | 282 | 532 | 20,141 | | | | |

239 256

281 296

361

423 403

548 526

521 569

19,725 18,337

18,480 19,125

20.570

| ļ | | Est | imated dat | a, 1967 act | | |
|------|--|--|--|--|--|--|
| 1967 | \$23,210 23,794 27,454 28,811 32,478 33,905 | \$19,486 22,664 24,166 25,126 26,145 27,161 | \$393 488 435 448 463 478 | \$508 459 530 619 601 582 | \$797 904 986 1,136 1,386 1,735 | \$24,190 25,277 28,586 32,340 38,995 46,414 |
| 1012 | 00,000 | ₩1,101 | 210 | 302 | 1,100 | 20, 11 |

¹ A negative figure indicates payment to the trust fund from the railroad retirement account, and a positive figure indicates the reverse.

² An interest rate of 3.75 percent is used in determining the level-costs under the intermediate-cost long-range estimates, but in developing the progress of the trust fund a varying rate in the early years has been used.

³ Not including amounts in the railroad retirement account to the credit of the old-age and survivors insurance trust fund. In millions of dollars, these amounted to \$877 for 1953, \$284 for 1954, \$163 for 1955, \$60 for 1956, and nothing for 1957 and thereafter.

⁴ These fourse say artificially, high because of the method of railways.

⁴ These figures are artificially high because of the method of reimbursements between this trust fund and the disability insurance trust fund (and,

likewise, the figure for 1959 is too low).

Note: Contributions include reimbursement for additional cost of noncontributory credit for military service and for the special benefits payable to certain noninsured persons aged 72 or over.

LONG-RANGE PROJECTIONS

11,285 12,059

14,541 15,689

16,017

20.658

1961 1962.....

1964

1966.....

11,862 13,356

14,217 14,914

18.267

Table 7 gives the estimated operations of the old-age and survivors insurance trust fund under the amended program for the long-range future. It will, of course, be recognized that the figures for the next two or three decades are the most reliable (under the assumption of level-earnings trends in the future), since the populations concerned—both covered workers and beneficiaries are already born. As the estimates proceed further into the future, there is much more uncertainty if for no reason other than the relative difficulty in predicting future birth trends. But it is nevertheless desirable and necessary to consider these long-range possibilities under a social insurance program that is intended to operate into perpetuity.

According to the intermediate-cost estimate, in

Table 6.—Disability insurance: Progress of trust fund, short-range cost estimate [In millions]

| Calendar year | Contri- butions | Benefit pay- ments | Adminis- trative expenses | Railroad retire- ment financial inter- change ¹ | Interest on fund ² | Balance in fund at end of year |
|--|--|---|--|---|---|--|
| | | ` | Actua | ıl data | | |
| 1957 1958 1959 1960 1961 1962 1962 1963 1964 1965 | \$702 966 891 1,010 1,038 1,046 1,099 1,154 1,188 2,022 | \$57 249 457 568 887 1,105 1,210 1,309 1,573 1,784 | 3 \$3 3 12 50 36 64 66 68 79 90 137 | -\$22 -5 5 11 20 19 24 25 | \$7 25 40 53 66 68 66 64 59 58 | \$649 1,379 1,825 2,289 2,437 2,368 2,235 2,047 1,606 1,739 |
| | | E | stimated o | lata, 1967 a | ct | • |
| 1967 | \$2,313 3,236 3,517 3,629 3,759 3,880 | \$1,956 2,390 2,608 2,740 2,867 2,985 | \$107 129 121 123 127 133 | \$31 44 22 22 22 25 29 | \$72 95 131 171 212 253 | \$2,030 2,798 3,695 4,610 5,562 6,548 |

¹ A negative figure indicates payment to the trust fund from the railroad retirement account, and a positive figure indicates the reverse.

² An interest rate of 3.75 percent is used in determining the level-costs under the intermediate-cost long-range estimates, but in developing the progress of the trust fund a varying rate in the early years has been used.

³ These figures are artificially low because of the method of reimbursements between this trust fund and the old-age and survivors insurance trust fund (and, likewise, the figure for 1959 is too high).

Note: Contributions include reimbursement for additional cost of noncontributory credit for military service.

contributory credit for military service.

every year after 1967 for the next 20 years, contribution income under the system is estimated to exceed old-age and survivors insurance benefit disbursements. Even after the benefit-outgo curve rises ahead of the contribution-income curve, the trust fund will continue to increase because of the effect of interest earnings (which more than meet the administrative expense disbursements and any financial interchanges with the railroad retirement program). As a result, this trust fund is estimated to grow steadily under the long-range cost estimate (with a level-earnings assumption), reaching \$75 billion in 1980, and \$160 billion at the end of the century. In the very distant future —in about the year 2020 the trust fund is estimated to reach a maximum of approximately \$310 billion and to then start decreasing.

The disability insurance trust fund grows slowly but steadily after 1967, according to the intermediate long-range cost estimate, as shown by table 8. In 1980, it will reach an estimated \$9 billion, and in 2000 it will be \$22 billion. There is estimated to be a small excess of contribution income over benefit disbursements for every year after 1967 for 35 years.

Table 7.—Old-age and survivors insurance: Progress of trust fund, long-range cost estimates

(In millions)

| | - | | | | | |
|--|--|--|--|---|---|---|
| Calendar year | Contri- butions | Benefit pay- ments | Adminis- trative expenses | Railroad retire- ment financial inter- change ¹ | Interest on fund ² | Balance in fund at end of year |
| | | | Low-cost | estimate | · | |
| 1975 | \$33,879 36,879 39,363 42,091 45,637 49,695 | \$28,040 32,177 36,592 40,754 43,917 45,539 | \$417 457 494 532 564 587 | \$425 260 155 70 10 -40 | \$1,884 3,369 4,842 6,279 7,933 10,302 | \$52,061 87,867 123,502 158,470 199,565 259,054 |
| | | | High-cost | estimate | | |
| 1975 1980 1985 1990 1995 2000 | \$33,360 36,138 38,376 40,650 43,568 46,798 | \$28,854 33,355 38,016 42,540 46,079 48,336 | \$476 523 565 620 646 674 | \$475 340 245 170 110 60 | \$1,199 1,836 2,266 2,377 2,263 2,165 | \$41,636 62,498 75,575 78,435 74,862 72,475 |
| | | In | termediate- | cost estim | ate | |
| 1975 | \$33,619 36,508 38,870 41,370 44,602 48,247 54,664 62,585 | \$28,447 32,766 37,304 41,647 44,998 46,938 52,885 76,292 | \$446 490 530 576 605 631 704 930 | \$450 300 200 120 60 10 -45 -90 | \$1,517 2,556 3,418 4,082 4,688 5,583 8,711 10,933 | \$46,781 74,876 98,701 116,620 133,683 159,499 246,839 302,846 |

LOW- AND HIGH-COST ESTIMATES

Table 7 shows the estimated operation of the old-age and survivors insurance trust fund under the program as changed by the 1967 act for lowand high-cost estimates. Corresponding figures for the disability insurance trust fund are given in table 8.

Under the low-cost estimate, the old-age and survivors insurance trust fund builds up rapidly and in the year 2000 is shown as being about \$260 billion; it is then growing at a rate of about \$14 billion a year. The disability insurance trust fund also grows steadily under the low-cost estimate, reaching about \$13 billion in 1980 and \$45 billion in 2000, at which time its annual rate of growth is about \$2 billion. For both trust funds, under these estimates, benefit disbursements do not exceed contribution income in any year after 1967 for the foreseeable future.

Under the high-cost estimate, on the other hand, the old-age and survivors insurance trust fund builds up to a maximum of about \$78 billion in about 25 years, but it decreases thereafter until it is exhausted in the year 2019. Under this estimate, benefit disbursements from the fund are lower than contribution income for about 20 years into the future.

For the disability insurance trust fund, in the early years of operation the contribution income under the high-cost estimate is slightly in excess of benefit outgo until 1980. Accordingly the fund, as shown by this estimate, will grow to about \$6 billion in the early 1980's and will then slowly decrease until it is exhausted in 2003.

These results are consistent and reasonable, since the system on the basis of an intermediatecost estimate is intended to be approximately self-supporting, as indicated previously. Accordingly, a low-cost estimate should show that the

Table 8.—Disability insurance: Progress of trust fund, longrange cost estimates

[In millions]

| Calendar year | Contri- butions | Benefit pay- ments | Adminis- trative expenses | Railroad retire- ment financial inter- change ¹ | Interest on fund ² | Balance in fund at end of year |
|--|--|--|--|---|--|--|
| | | | Low-cost | estimate | ' | |
| 1975 1980 1985 1990 1995 2000 | \$3,582 3,899 4,161 4,448 4,822 5,250 | \$2,997 3,351 3,618 3,809 4,096 4,624 | \$126 118 117 115 116 129 | -\$14 21 23 25 25 25 | \$311 493 710 988 1,352 1,797 | \$8,264 12,654 18,001 24,900 33,899 44,803 |
| | | | High-cost | estimate | · | |
| 1975• | \$3,528 3,821 4,057 4,296 4,604 4,945 | \$3,317 3,812 4,164 4,416 4,794 5,450 | \$136 147 155 161 172 195 | -\$6 -11 -13 -15 -15 -15 | \$167 187 184 171 146 81 | \$5,529 6,217 6,148 5,735 4,949 2,760 |
| | <u></u> | Int | ermediate | cost estime | ite | |
| 1975 | \$3,555 3,860 4,109 4,372 4,713 5,097 5,774 6,598 | \$3,157 3,582 3,891 4,113 4,445 5,037 6,562 7,326 | \$131 133 135 138 143 162 210 233 | -\$10 -16 -18 -20 -20 -20 -20 -20 | \$232 323 413 519 652 788 906 763 | \$6,877 9,351 11,856 14,854 18,556 22,276 25,222 21,384 |

¹ A negative figure indicates payment to the trust fund from the railroad retirement account, and a positive figure indicates the reverse.

² At interest rates of 3.75 percent for the intermediate-cost estimate, 4.25 percent for the low-cost estimate, and 3.25 percent for the high-cost estimate. Note: Contributions include reimbursement for additional cost of non-contributory credit for military service before 1957. No account is taken in this table of the outgo for the special benefits payable to certain noninsured persons aged 72 or over or for the additional benefits payable on the basis of noncontributory credit for military service after 1967—or of the corresponding reimbursement therefor, which is exactly counterbalancing from a long-range cost standpoint. long-range cost standpoint.

¹ A negative figure indicates payment to the trust fund from the railroad retirement account, and a positive figure indicates the reverse.

² At interest rates of 3.75 percent for the intermediate-cost estimate, 4.25 percent for the low-cost estimate, and 3.25 percent for the high-cost estimate. Note: Contributions include reimbursement for additional cost of non-contributory credit for military service before 1957. No account is taken in this table of the outgo for the additional benefits payable on the basis of homeontributory credit for military service after 1967—or of the correspondent of the correspon noncontributory credit for military service after 1967—or of the corresponding reimbursement therefor, which is exactly counterbalancing from a long-range cost standpoint.

system is more than self-supporting, and a high-cost estimate should show that a deficiency would arise later on. In actual practice, under the philosophy in the 1950 and subsequent legislation—set forth in the Committee reports—the tax schedule would be adjusted in future years so that none of the developments of the trust funds shown for low-cost or high-cost estimates ever eventuate.

Thus, if experience followed the low-cost estimate and if the benefit provisions were not changed, the contribution rates would probably be adjusted downward—or perhaps the increases scheduled for future years would not go into effect. If, on the other hand, the experience followed the high-cost estimate, the contribution rates would have to be raised above those scheduled. At any rate, the high-cost estimate does indicate that, under the tax schedule adopted, there will be ample funds to meet benefit disbursements for several decades, even under relatively high-cost experience.

Table 9 shows the estimated costs of the oldage and survivors insurance benefits and of the

Table 9.—Old-age, survivors, and disability insurance: Cost of benefit payments as percent of taxable payroll ¹

| | [Percent] | | |
|--|--|--|--|
| Calendar year | Low-cost estimate | High-cost estimate | Inter- mediate-cost estimate ² |
| | | OASI | |
| 1975 1980 1985 1985 1990 1995 2000 2010 2025 2040 1-evel-cost ³ | 7.48 7.88 8.40 8.75 8.69 8.27 8.05 9.72 9.54 8.26 | 7.82 8.34 8.95 9.45 9.55 9.33 9.48 12.50 13.13 | 7.65 8.11 8.67 9.09 9.11 8.78 8.73 10.99 11.09 8.77 |
| | · | DI | |
| 1975 | 0.80 .82 .83 .82 .81 .84 .95 .91 .94 | 0.90 .95 .98 .98 .99 1.05 1.24 1.23 1.27 | 0.85 .89 .90 .90 .94 1.08 1.05 |

¹ Taking into account the lower contribution rate for self-employment income and tips, as compared with the combined employer-employee rate. ² Based on the averages of the dollar payrolls and dollar costs under the low-cost and high-cost estimates.

disability insurance benefits under the amended program, as a percentage of taxable payroll for various future years, through 2040. It also shows the level costs of the two programs for the low-, high-, and intermediate-cost estimates.

HOSPITAL INSURANCE PROGRAM

The hospital insurance system as it was changed by the 1967 amendments has an estimated cost for benefit payments and administrative expenses that is in long-range balance with contribution income. It is recognized that the preparation of cost estimates for hospital and related benefits is much more difficult and is much more subject to variation than cost estimates for the cash benefits of the old-age, survivors, and disability insurance system. This is so not only because the hospital insurance program is newly established, but also because of the greater number of variable factors involved in a service-benefit program than in a cash-benefit one. However, it is believed that the present cost estimates are made under conservative assumptions with respect to all foreseeable factors.

The present cost estimates are based on considerably higher assumptions as to hospital costs than were the original estimates, which were prepared in 1965 at the time that the system was established. At that time, the sharp increases that have occurred in such costs in 1966–67 were not generally predicted by experts in the field.

These cost estimates also contain revised assumptions on the initial level of earnings in 1966 and on future interest-rate trends. These assumptions are the same as those used in the revised cost estimates for the old-age, survivors, and disability insurance system. In addition, the new cost estimates for the hospital insurance system are based on the revised estimates of beneficiaries aged 65 and over under the OASDI program. The latter show somewhat fewer aged beneficiaries in relation to the covered population for whom contributions are payable. Accordingly, the cost of the hospital insurance is reduced on account of this factor (although the effect of hospital-cost trend assumptions is only partly offset).

The new cost estimates contain the assumption that, in the intermediate-cost estimate, administrative expenses will be 3½ percent of the benefit

³ Level contribution rate, at an interest rate of 3.25 percent for high-cost, 3.75 percent for intermediate-cost, and 4.25 percent for low-cost, for benefits after 1966, taking into account interest on the trust fund on December 31, 1966, future administrative expenses, the railroad retirement financial interchange provisions, and the reimbursement of military-wage-credits cost.

payments, which is the anticipated experience in 1967-68 (as against the assumption of 3 percent in the original estimates). The administrative expenses for the low-cost and high-cost estimates are assumed to be the same proportion as for the intermediate-cost estimate. The new cost estimates also take into account the small additional cost arising from the reimbursement bases for hospitals and extended-care facilities that are now in effect, which are somewhat higher than was assumed in the original cost estimates.

Financing Basis

The contribution schedule contained in the 1967 amendments, with an earnings base of \$7,800 in 1968 and after, is as follows, as compared with that of the 1965 Act (with an earnings base of \$6,600):

| 1 | ٠, | 'ercen | |
|---|----|--------|---|
| 1 | 1 | rercen | 1 |

| | | Self-employed rate | | |
|----------|-----------------------------------|--|--|--|
| 1965 act | 1967 act | 1965 act | 1967 act | |
| 1.0 | 1.0 | 0.50 | 0.50 | |
| 1.0 | 1.2 | . 50 | .60 | |
| 1.1 | / | | . 65 . 70 | |
| 1.4 | 1.6 | .70 | .80 | |
| | 1965 act 1.0 1.0 1.0 1.1 1.1 1.2 | 1.0 1.0 1.0 1.2 1.0 1.2 1.1 1.3 1.2 1.4 1.4 1.6 | employee rate rai 1965 act 1967 act 1965 act 1.0 1.0 0.50 1.0 1.2 50 1.0 1.2 50 1.1 1.3 55 1.2 1.4 60 1.4 1.6 70 | |

The combined employer-employee rate under the 1967 amendments is 0.2 percent higher in 1968 and after than under the 1965 act. These increases, along with the additional income from the higher earnings base, would finance the increased cost of the program that results from the higher hospitalization-cost assumptions used in the current estimates, as compared with those used when the program was initiated in 1965.

The hospital insurance program is completely separate from the OASDI system in several ways, although the earnings base is the same under both programs.

First, the schedules of tax rates for OASDI and HI are in separate subsections of the Internal Revenue Code (unlike the situation for OASI and DI, where there is a single tax rate for both programs, but an allocation thereof into two portions).

Second, the HI program has a separate trust

fund (as is also the case for OASI and DI) and, in addition, has a separate Board of Trustees from that of the OASDI system.

Third, income-tax withholding statements (forms W-2) show the proportion of the total contribution for OASDI and HI that relates to the latter program.

Fourth. the HI program covers railroad employees directly in the same manner as other covered workers and their benefit payments are paid directly from this trust fund (rather than directly or indirectly through the railroad retirement system), whereas these employees are not covered by OASDI (except indirectly through the financial interchange provisions).

Fifth, the financing basis for the HI system is determined under a different approach than that used for the OASDI system—a reflection of the different natures of the two programs (by assuming rising earnings levels and rising hospitalization costs in future years instead of level-earnings assumptions and by making the estimates for a 25-year period rather than a 75-year one).

As has always been the case in connection with the OASDI system, the Congress has very carefully considered the cost aspects of the HI system and proposed changes therein. In the same manner, the Congress has indicated that this program should be completely self-supporting from the contributions of covered individuals and employers (the transitional uninsured group covered by this program have their benefits, and the resulting administrative expenses, completely financed from general revenues). Accordingly, the tax schedule in the law should make the HI system self-supporting over the long range as nearly as can be foreseen, and thus actuarially sound.

The concept of actuarial soundness is somewhat similar for the two programs, but there are important differences. One major difference is that cost estimates for the hospital insurance program should desirably be made over a period of only 25 years in the future, rather than 75 years as it is for the OASDI program. A shorter period for the hospital insurance program is necessary because it is more difficult to make forecast assumptions for a service benefit than for a cash benefit. There is a reasonable likelihood that during the next 75 years the number of beneficiaries aged 65 and over will tend to increase in relation to the covered population (a period of this length

is thus both necessary and desirable for studying the cost of the cash OASDI benefits). It is far more difficult, however, to make reasonable assumptions concerning the trends of medical care costs and practices for more than 25 years in the future.

In a new program such as hospital insurance it seemed desirable that it be completely in actuarial balance. To accomplish this result, a contribution schedule was developed that will meet this requirement, according to the underlying cost estimates.

Basic Assumptions

Perhaps the major consideration in preparing actuarial cost estimates for hospital benefits is the fact that—unlike the situation for the monthly cash benefits—an unfavorable cost result is shown when the average earnings level is assumed to increase. The reason is that the hospitalization costs should then be assumed to increase at least at the same rate as the earnings level; if the maximum taxable earnings base is not adjusted accordingly, the taxable earnings will not increase as fast as the hospitalization costs. Accordingly, the assumption of a fixed taxable earnings base at \$7,800 should be considered as a "safety factor" in the cost estimates.

Originally, the average total earnings (including earnings above the taxable base) were assumed to increase in the future at a rate of 3 percent, and hospitalization costs by an additional 2.7 percent for a total of 5.7 percent during the next 5 years. The differential was then assumed to decrease gradually from the sixth year on, until it became zero after the tenth year. For the last 15 years of the period the hospitalization costs were assumed to increase at the same rate as the average total earnings.

Lately, several estimates of the short-term future trend of hospital costs have been made by experts in this field. All of these are well above the rate of 5.7 percent per year until 1970 that was assumed in the initial cost estimates for the program made when it was enacted in 1965. The American Hospital Association has estimated an annual rate of increase of as much as 15 percent for the next 3 to 5 years. The Blue Cross Association has made a corresponding estimate of 9 percent per year in the period up to 1970.

Table 10.—Assumptions as to future rates of increase in hospital costs

[Percent]

| Calendar year | Low-cost | Inter- mediate-cost | High-cost | |
|----------------|----------|------------------------|-----------|--|
| 1967 | 12.0 | 15.0 | 15.0 | |
| 1968 | 10.0 | 15.0 | 15.0 | |
| 1969 | 8.0 | 10.0 | 15.0 | |
| 1970 | 6.0 | 6.0 | 15.0 | |
| 1971 | 5.2 | 5.2 | 15.0 | |
| 1972 | 4.6 | 4.6 | 10.0 | |
| 1973 | 4.1 | 4.1 | 4.1 | |
| 1974 | 3.6 | 3.6 | 3.6 | |
| 1975 and after | 3.0 | 3.0 | 3.0 | |

Three sets of assumptions as to the short-term trend of hospital costs have been made for the cost estimates discussed in this article. These assumptions are shown in table 10. In each case, the annual rates of increase are assumed to merge with those used in the initial cost estimates for the program for 1971 for the low-cost and intermediate-cost assumptions and 1973 for the highcost assumptions—that is, increases slightly above the increases in the earnings level from these dates until about 1975, and then the same increases. The low-cost set of assumptions yields about the same result as the Blue Cross prediction, and the high-cost set corresponds to the highest American Hospital Association prediction. The intermediate-cost set is used to develop the financing provisions of the legislation.

The hospital utilization rates used for the cost estimates are the same as those used in the initial cost estimates for the program. Analysis of the actual experience for the first 6 months of operation (the last half of 1966) seems to indicate that it is close to the original assumptions, although somewhat higher.

The average daily cost of hospitalization that was used in the cost estimates was computed on the same basis as the corresponding figures in the initial cost estimates that were prepared when the legislation was enacted in 1965. Specifically, an average of about \$38.50 per day was used for the reimbursement principles under the 1965 act for 1966 and was projected for future years in the manner described previously. Analysis of the experience for 1966, for which complete data are not yet available, indicates that this assumption was close to what actually occurred, although possibly somewhat higher.

Table 11 shows the level-cost of the hospital and related benefits under the 1967 amendments

Table 11.—Hospital insurance: Level-cost analysis, intermediate-cost estimate

[Percent]

| Legislation | Level-cost of benefits ¹ | Level- equivalent of contributions | Actuarial balance |
|-----------------------------|--|--|----------------------|
| 1965 act, original estimate | 1.23 | 1.23 | 0.00 |
| 1965 act, revised estimate | 1.54 | 1.23 | 31 |
| 1967 act | 1.38 | 1.41 | +.03 |

¹ Including administrative expenses.

as a percentage of taxable payroll determined as of January 1, 1966, using an interest of 33/4 percent. These figures are based on the assumptions that the earnings base will not change and that both hospitalization costs and general earnings will continue to rise during the entire 25-year period considered in the cost estimates. Also shown in table 11 are the level-equivalents of the contribution schedules and the net actuarial balances of the system.

The estimated level-cost of the benefit payments and administrative expenses in the low-cost estimate is 1.27 percent of taxable payroll; the corresponding figure for the high-cost estimate is 1.76 percent. In each instance, the level-equivalent of the contribution schedule is 1.41 percent of taxable payroll.

It should be recognized that the vast majority of the level-cost of the benefit payments relates to inpatient hospital benefits. Most of the remaining cost is attributable to extended-care benefits, with home health service benefits representing only a small portion. Currently, inpatient hospital benefits account for about 90 percent of total benefit outgo. In later years, it seems possible that there will be much greater use of posthospital extended-care services and posthospital home health services (particularly the former), thus tending to reduce the use of hospitals and, therefore, the cost of the inpatient hospital benefits.

The estimated level-cost of the system is reduced by 0.01 percent of taxable payroll as a result of transferring the outpatient diagnostic benefits to the supplementary medical insurance system. The other changes in the benefit provisions of this program would not have any significant effect on the long-range costs. The cost of providing further days of hospital benefits beyond 90 days in a spell of illness—as is done by the "lifetime reserve" of 60 days—is relatively small.

Table 12.—Hospital insurance: Changes in actuarial balance expressed in terms of level-cost as percent of taxable payroll, by type of change, intermediate-cost estimate, 1965 act and 1967 act, based on 3.75 percent interest

[Percent]

| Item | Level-cost |
|---|----------------------|
| Actuarial balance, 1965 act. | -0.31 |
| Increase in taxable earnings base Revised contribution schedule. Transfer of outpatient diagnostic benefits to SMI. Further hospital benefits beyond 90 days. Total effect of changes. | +.15 +.18 +.01 |
| Total effect of changes. | +.34 |
| Actuarial balance under 1967 act | +.03 |

¹ Less than 0.005 percent.

Table 12 summarizes these changes in the cost of the program and also gives data as to the value of the contribution schedules and the resulting actuarial balances.

As indicated previously, one of the most important assumptions in the cost estimates presented herein is that the earnings base is assumed to remain unchanged, even though for the remainder of the period considered (up to 1990) the general earnings level is assumed to rise at a rate of 3 percent annually. If the earnings base does rise in the future to keep up to date with the general earnings level, then the contribution rates required would be lower than those scheduled in the law. In fact, if this were to occur, the steps in the contribution schedule beyond the combined employer-employee rate of 1.2 percent would not be needed if all other assumptions in the intermediate-cost estimate are realized.

The cost for the persons who are blanketed in for the hospital and related benefits is met from the general fund of the Treasury (with the financial transactions involved passing through the HI trust fund). The costs so involved, along with the financial transactions, are not included in the preceding cost analysis or in the following discussions of the future operations of the HI trust fund. For the first 7 years of operation, these costs are as follows:

| | Cost to Treasury | | |
|---------------|------------------|--|--|
| Calendar year | (in millions) | | |
| 1966 1 | \$174 | | |
| 1967 | 439 | | |
| 1968 | 465 | | |
| 1969 | | | |
| 1970 | | | |
| 1971 | | | |
| 1972 | 403 | | |

¹ Data are for the last 6 months of the year (estimate based on actual experience).

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Table 13 shows the estimated operation of the HI trust fund under the intermediate-cost estimate and also under the low-cost and high-cost estimates. Under the intermediate-cost estimate, the balance in the trust fund would grow steadily in the future, increasing from about \$1.3 billion at the end of 1967 to \$3.3 billion 5 years later. Over the long range, the trust fund would build up steadily, reaching \$15.7 billion in 1990 (representing the disbursements for 1.4 years at the level of that time).

Under the low-cost estimate, the balance in the trust fund grows steadily, reaching \$7.5 billion in 1975 and \$36.8 billion in 1990 (at which time it represents the disbursements for 3.6 years). In actual practice, if the low-cost assumptions materialize, it would not be necessary to increase the contribution rates after 1975 as in the legislation. Under the high-cost estimate, which represents probably the most extreme situation from a high-cost standpoint in regard to hospital costs, the balance in the trust fund reaches a maximum of \$2.4 billion at the end of 1969, and then it decreases until it is exhausted in 1972. This estimate indicates that, despite very high assumptions as to the trend of hospital costs, the system would have sufficient funds to maintain operations for at least 4 years under these circumstances, without changing the financing provisions.

SUPPLEMENTARY MEDICAL INSURANCE PROGRAM

The 1967 amendments expanded somewhat the protection provided by the supplementary medical insurance program. The increase in cost for these changes, effective after March 1968, was recognized by the Secretary of Health, Education, and Welfare in his determination of the standard premium rate for the period after March 1968, which was promulgated at \$4 (in comparison with the rate of \$3 applicable for the period July 1966-March 1968).

Financing Basis

Coverage under the supplementary medical insurance program can be voluntarily elected, on an individual basis, by virtually all persons aged

Table 13.—Hospital insurance: Progress of trust fund [In millions]

| Calendar year | Contri- butions | Benefit pay- ments | Adminis- trative expenses | Interest on fund ¹ | Balance in fund at end of year |
|--|---|---|--|--|---|
| | Actual data | | | | |
| 1966 | \$1,911 | \$767 | 2 \$57 | \$34 | \$1,121 |
| | Low-cost estimate | | | | <u></u> |
| 1967 | \$2,943 3,972 4,223 4,391 4,564 4,732 5,274 5,503 5,695 | \$2,683 2,981 3,336 3,649 3,932 4,215 4,499 4,777 5,055 | \$94 104 117 128 138 148 157 167 | \$45 70 109 142 169 191 215 242 266 | \$1,332 2,289 3,168 3,924 4,587 5,147 5,980 6,781 7,510 |
| | High-cost estimate | | | | |
| 1967 1968 1969 1970 1970 1971 1972 1978 1974 1975 | \$2,943 3,972 4,223 4,391 4,564 4,732 5,274 5,503 5,695 | \$2,683 3,190 3,795 4,501 5,292 5,960 6,364 6,762 7,161 | \$94 112 133 157 185 209 223 237 251 | \$45 64 86 85 57 3 (3) (3) | \$1,332 2,064 2,447 2,265 1,409 (3) (3) (3) (3) |
| | Intermediate-cost estimate | | | | · |
| 1967 1968 1969 1970 1971 1971 1972 1973 1974 1975 1980 | \$2,943 3,972 4,223 4,391 4,564 4,732 5,274 5,503 5,695 8,087 9,241 | \$2,683 3,190 3,636 3,982 4,292 4,602 4,912 5,216 5,522 6,940 8,690 | \$94 112 127 139 150 161 172 183 193 243 304 | \$45 64 90 108 117 121 125 132 135 203 373 | \$1,332 2,666 2,616 2,994 3,233 3,638 3,874 3,989 6,454 |

 $^{^{-1}}$ An interest rate of 3.75 percent is used in determining the level-costs, but in developing the progress of the trust fund a varying rate in the early years has been used, ranging down from 5 percent initially to 4 percent after 1975.

² Including administrative expenses incurred in 1965.

³ Fund exhausted in 1972.

Note: The transactions relating to the noninsured persons, the costs for

65 and over in the United States. This program is intended to be completely self-supporting from the contributions of covered individuals and the matching contributions made from the general fund of the Treasury.

Under the 1967 amendments, the standard premium rate (for persons enrolling in the earliest possible enrollment period) is generally to be determined annually on a permanent basis—for April 1968 through June 1969 and then for 12month periods beginning with July 1969 and each July thereafter.

Persons who do not elect to come into the sys-

whom is borne out of the general funds of the Treasury, are not included in the above figures. The actual disbursements in 1966, and the balance in the above figures. The actual disbursements in 1966, and the balance in the trust fund by the end of the year, have been adjusted by an estimated \$174 million on this account.

tem as early as possible will generally have to pay a higher premium rate.

The 1965 act provided for the establishment of an advance appropriation from the general fund of the Treasury to serve as an initial contingency reserve, in an amount equal to \$18 (or 6 months' per capita contributions from the general fund of the Treasury) times the number of individuals estimated to be eligible for participation in July 1966. This amount—approximately \$345 million (of which \$100 million has actually been appropriated)—has not actually been transferred to the trust fund and will not be transferred unless, and until, some of it would be needed. This contingency amount is available only during the first 18 months of operations (July 1966-December 1967), and any amounts actually transferred to the trust fund would be subject to repayment to the general fund of the Treasury (without interest).

The concept of actuarial soundness for the medical insurance program differs somewhat from that for the OASDI program and the hospital insurance program. In essence, the medical insurance program is financed on a current-cost basis rather than on a long-range cost basis. The situations are essentially different because the financial support of the medical insurance program comes from a premium rate that is subject to change from time to time, in accordance with the experience actually developing and with the experience anticipated in the near future. The actuarial soundness of the program therefore depends only upon the adequacy of the "shortterm" premium rates to meet, on an accrual basis, the benefit payments and administrative expenses (including the accumulation and maintenance of a contingency fund) for the period for which they are established.

Results of Cost Estimates

The 1967 amendments made a number of changes in the benefit provisions of the SMI program. Some of these provisions expanded the scope of the program, and several limited it slightly. The only changes with a significant cost effect are shown below, together with the monthly cost per participant in relation to the combined \$6 monthly premium rate (for the participant and the Government).

| nem | |
|---|--------|
| Nonprofessional component of outpatient diag- | |
| nostic services | \$0.12 |
| Elimination of cost-sharing for inpatient path- | |
| ology and radiology | .20 |
| Extending coverage of physical-therapy serv- | |
| ices benefits | .05 |
| | |

The cost of covering certain limited services furnished by podiatrists is very small.

Total _____ \$0.37

The total cost of \$0.37 a month per capita in relation to the initial premium rate increases to about \$0.46 when the rise in the standard premium rate for the period after March 1968 is taken into account. This total cost of \$0.46 per month per capita is equivalent to an annual cost of \$100 million with respect to 18 million participants (with half of that amount coming from the general fund of the Treasury).