

# What Contribution Rate for Old-Age and Survivors Insurance?

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*There is general agreement in this country on the principle of contributory old-age and survivors insurance. There has been less general agreement on questions relating to the level of contributions and the timing of any changes in present contribution rates. The following article by the former Staff Director of the Advisory Council on Social Security to the Senate Finance Committee presents one approach to these questions. As in all Bulletin articles, the views expressed are those of the author and do not necessarily reflect the official position of the Social Security Administration. They are presented here because of their interest to administrators and others concerned with the social security program.*

THE immediate practical problem facing the Congress in the financing of old-age and survivors insurance is the determination of a schedule of contribution rates. To date the rates charged under the program have not been based on the adoption of any particular plan of financing. Rather, they have been frozen each year at the original rate (1 percent for employer and 1 percent for employee), and the adoption of a long-range plan has been postponed. It is the purpose of this paper to suggest a plan and to indicate the major alternatives to that plan.

## *The Nature of Old-Age and Survivors Insurance*

The old-age and survivors insurance program is not one program but two, each with very different financial problems. It is an old-age retirement program, and it is also a form of life insurance that provides monthly income for survivors. The survivors' or life insurance part of the program is susceptible of the usual insurance technique of giving full protection for a limited period of time after the payment of small initial premiums. In

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general, as in term insurance, the contributions paid by covered workers each year meet the cost of the protection afforded during that year, and the contributions collected should roughly equal the benefits paid out.<sup>1</sup>

This is not the case with the retirement part of the program. A 25-year-old worker can pay a premium for protection against the risk of death during his 25th year, but he cannot pay a premium for protection against the risk of retirement during that year; he is not subject to the latter risk until old age. The retirement part of the program is, therefore, essentially an annuity rather than an insurance program, and the contribution is primarily a way of accumulating a capital sum over a period of many years. By the time a worker retires, this capital sum plus interest should be sufficient to pay benefits at the desired level for his life expectancy. Because retirement is a condition of payment, the capital accumulation required of each worker is considerably less than it would be for a straight annuity paid on the attainment of a given age. Nevertheless,

<sup>1</sup>The contributions collected must be somewhat in excess of the survivors' benefits paid out, in order to meet the deferred cost of paying benefits to widows at age 65. There are some increases in annual costs in the survivors' part of the program, but these are small in comparison with the increasing costs in the old-age part.

capital accumulation remains the essential technique.

## *The Central Problem in Financing*

Financing the old-age and survivors insurance program presents difficulties largely because persons retiring in the first 5, 10, 15, or even 20 years of the program cannot be expected to contribute at a high enough rate to accumulate a sum that would provide reasonably adequate benefits. Yet for sound social reasons we are not willing to postpone adequate payments under the social insurance program to the time when the amounts accumulated would cover the cost of such payments. This is a problem that all new retirement systems face. In private pension plans the usual solution is to give past-service credits to the older worker, with the employer paying the whole cost of these credits.

Most social insurance programs also give to the workers retiring in the early years of the program benefits that are much greater than can be bought by the contributions paid for their age group. This was true of the old-age benefit program under the original Social Security Act, passed in 1935; and in the 1939 amendments, older workers were given even larger benefits in relation to their contributions. Today, in the midst of a race between the effort to make contributory social insurance more effective immediately and a renewed drive to establish noncontributory pensions from general taxation, it is more important than ever that workers who are now old be paid insurance benefits which are socially adequate, but which therefore are much greater than can be paid for by their contributions and those of their employers.

The financial problem presented by the clear necessity to pay substantial benefits immediately is how to make up for the deficit in the contribution of older workers. One solution to this problem suggested by the Committee

on Economic Security in its report preceding the passage of the 1935 Social Security Act was that the Government bear this cost of getting the system started, just as employers bear it in private plans. The reasoning of the Committee in making this suggestion was outlined in the report as follows:

The plan outlined above contemplates that workers who enter the system after the maximum contribution rate has become effective will receive annuities which have been paid for entirely by their own contributions and the matching contributions of their employers. Workers now middle aged or older will receive annuities which are substantially larger than could be purchased by their own and matching contributions, although considerably less than the annuities which will be paid to workers who contribute for longer periods. Larger annuities than on a strictly earned basis would seem desirable because annuities build up only very slowly—for instance, a 4-percent contribution rate on a wage of \$100 per month will produce at age 65 an annuity of only \$2.58 per month if contributions were made for 5 years beginning at 60 years; \$5.95 after 10 years, contributions beginning at 55; and \$10.19 after 15 years, contributions beginning at age 50.

The allowance of larger annuities than are warranted by their contributions and the matching contributions of their employers to the workers who are brought into the system at the outset, will involve a cost to the Federal Government which if payments are begun immediately will total approximately \$500,000,000 per year. Under the plan suggested, however, no payments will actually be made by the Federal Government until 1965, and will, of course, be greater than they would be if paid as incurred, by the amount of the compound interest on the above sum.<sup>2</sup>

In some foreign systems the deficit of contribution of persons brought into insurance late in life has also been considered an important reason for financing the system partly out of a Government contribution. In Great Britain, for example, the Gov-

ernment contribution consists of two items—one to cover this deficit and another to cover part of the cost of benefits for those under the program for a full working lifetime.

These two distinct types of Government subsidy are separately provided for in the National Insurance Act of 1946. As stated on page ii of the financial memorandum appearing in the National Insurance Bill, section 2 (3) (b) provides for "an annual payment fixed on a rising scale for a period of years of such amount as will meet the estimated cost of accepting entrants of all ages into insurance under the scheme on the same terms as entrants at age 16," while section 2 (3) (a) provides for "a supplementary payment in respect of each contribution paid by insured persons and employers."

In Appendix A of the Beveridge Report the Government Actuary gives the reasoning underlying these provisions:

For the purpose of this analysis the view adopted on similar occasions in the past has been followed, namely, that for assessing the rate of contribution which can equitably be charged in a compulsory scheme of Social Insurance a fair basis is obtained by expressing the value of the future benefits to a new entrant at the minimum age of 16 in terms of the contribution, payable throughout working lifetime, which should be made to insure the benefits on an actuarial basis; this is commonly termed the *actuarial contribution*. . . .

If a contribution on [this] basis were charged, new entrants at age 16 would be self-supporting in the sense that, if they could be isolated as a class and their contributions accumulated in a separate fund to meet the future cost of their benefits, no State subsidy would be required in respect of them since their pensions, for example, would be met out of the reserves accumulated during the working lifetime of each year's new entrants, which, on the assumptions made, would be exhausted on the death of the last pensioner. . . .

Looking at the matter in another way, there is a deficiency because [older] persons have not paid the contribution at the new rates continuously in the past from age 16. The resulting excess in the cost of benefits over the

income from contributions has to be met from the Exchequer. . . .

In the Social Security Plan it is proposed that in addition to the subsidy provided by admitting the bulk of the existing population over age 16 at the flat rate of contribution without reduction of benefits . . . the Exchequer should provide a further subsidy by undertaking the liability for a proportion of the cost for future entrants at the initial age.<sup>3</sup>

### *The Actuarial Rate*

The Committee on Economic Security contemplated a Government contribution for the American program sufficient to cover the deficit arising from paying annuities larger than could be bought by the combined employer-employee contributions for individuals covered at the outset. The maximum combined contribution rate for employers and employees was to be the rate necessary to yield the proper capital accumulation for a generation of workers under the program for a full working lifetime. This is the rate referred to above by the Government Actuary of Great Britain as the actuarial contribution. Under the British flat-benefit scheme, the actuarial rate expresses the value of the benefits to the individual. Under the American program with its graduated benefit formula (now 40 percent of the first \$50 of average monthly wage plus 10 percent of the next \$200) the actuarial rate is a group rate. Low wage earners get larger benefits in relation to their contribution than do high wage earners, and the actuarial rate represents the average value of the benefits for persons in each age group that has the opportunity to contribute over a working lifetime.

The actuarial rate for the present program in the United States is estimated to be within the range of 2 to 3½ percent. A greatly liberalized system such as that proposed by the Advisory Council on Social Security to the Senate Finance Committee can be financed for those who spend a working lifetime under the program through contribution rates of approxi-

<sup>2</sup> Report to the President of the Committee on Economic Security, 1935, pp. 31-32.

<sup>3</sup> Sir William Beveridge, *Social Insurance and Allied Services*, 1942, pp. 177-178.

mately 2 percent for the employer and 2 percent for the employee.<sup>4</sup> (The Council estimated a combined rate of from 3 to 5 percent.) The proposals of the Social Security Administration (exclusive of disability benefits) might require a slightly higher rate, since costs under this program would be somewhat greater in later years. (The combined actuarial rate for these recommendations is estimated to be within the range of 3½ to 6 percent.)<sup>5</sup>

If under the actuarial plan the Government share were to be paid into the trust fund from the beginning on a level-premium basis, the employer, employee, and Government would pay in equal shares. If the Government contribution is deferred, however, as suggested by the Committee on Economic Security, it would amount eventually to about one-half of annual disbursements. This is equivalent to the deficit of contribution of those who do not pay the ac-

<sup>4</sup> *Recommendations for Social Security Legislation* (S. Doc. 208, 80th Cong., 2d sess.). The major recommendations for old-age and survivors insurance included benefit increases which in the next few years would result in average benefits more than double the 1948 average, practically universal coverage, substantial liberalization of the eligibility requirements for older workers, reduction in the qualifying age to 60 for women, abolition of the retirement test at age 70 and liberalization of the test between age 65 and 70, increase in the wage and contribution base from \$3,000 to \$4,200 per year, raising the minimum and maximum benefits, and increasing the protection of survivors.

<sup>5</sup> Throughout this paper the contribution rate selected has been the midpoint between a high-cost and a low-cost estimate based on level wage assumptions (see p. 9). Such a rate may need revision from time to time, since actual experience may indicate that costs are not at the midpoint but closer to either the low-cost or high-cost estimate. The estimates are based on Actuarial Study No. 28 (*Long-Range Cost Estimates for Expanded Coverage and Liberalized Benefits Proposed to the Old-Age and Survivors Insurance System* by H. R. 2893), Social Security Administration, Federal Security Agency, and the cost estimates in the Advisory Council's report (S. Doc. 208). The higher long-run costs of the Administration plan result largely from the provision for an increase of 1 percent in the basic benefit amount for each year in which the worker is paid \$200 or more in covered employment.

tuarial rate over a working lifetime.<sup>6</sup> Such support from general tax resources is justified in part by the decrease in public assistance expenditures that would result from paying higher benefits in the early years than could be bought by the contributions of retired persons alone, and in part by the fact that old-age and survivors insurance, although not yet universal, is very broad in its coverage and serves the general welfare.

It is not essential to the theory of the actuarial rate that employers and employees must pay the full rate from the beginning of the program; it may also be thought of as a maximum rate, to be reached in one or two step-ups during the first decade or so of operation. Postponement of the effective date of the full actuarial rate, however, means that the eventual Government contribution must be increased somewhat and will go partly to pay some of the cost of benefits for young persons who enter the system during the early years.

### **The Level-Premium Rate**

In this country in recent years the controversy over the rates to charge employers and employees has centered largely around two alternatives to the actuarial rate—the so-called “level-premium rate” and a schedule of contributions under a “pay-as-you-go plan.” Like the actuarial rate, these alternatives would provide for equal employer and employee contributions, but they would not provide for a Government contribution.

The level-premium rate is the rate that will cover the full cost of the system if charged from the beginning and in perpetuity. It is considerably higher than the actuarial rate, because it includes the cost of the benefits for workers who do not have the opportunity to contribute to the system over a working lifetime. The Advisory Council estimated, for example, that for its proposals the level-pre-

<sup>6</sup> It is unrealistic to expect this deficit to be made up by a lump-sum appropriation to the trust fund at the beginning of the program. In the absence of such appropriation, however, a Government contribution is needed in perpetuity to make up for the loss of interest that would otherwise be earned by such a lump sum.

mium rate would be from 4.9 to 7.3 percent of pay roll as compared with 3 to 5 percent for the actuarial rate. Comparable figures for the Social Security Administration proposals (exclusive of disability benefits) would be 5.2 to 8.2 percent for the level-premium rate as compared with 3½ to 6 percent for the actuarial rate.

Charging the level-premium rate would make reliance on other sources of revenue unnecessary. In the early years of the system, when few persons aged 65 and over are eligible for benefits, imposition of the level-premium rate would result in the building up of a large reserve. Later, when the income from contributions would not be sufficient to meet benefit costs, the interest income from this fund would make up the deficit.

This method of financing requires a combined contribution rate in excess of the actuarial value of benefits for younger workers, although the rate paid by the worker alone would seldom be in excess of the value received.<sup>7</sup> The deficit of contribution of older workers, under this system, is usually thought of as coming from the employer contribution, with many younger workers paying the full cost of their own benefits.

There has been considerable opposition on both economic and political grounds to a plan that would result in such a large excess of income over outgo in the early years of the program. It has been opposed on economic grounds largely because during the first few decades of operation the excess of contributions over benefits might result in a decrease in the money available for consumer purchases and have a deflationary effect on the general economy, an effect which during certain phases of the business cycle is undesirable. This effect, it is true, may be offset by other fiscal activities of Government; taken as an isolated phenomenon, however, charging employers and em-

<sup>7</sup> This statement assumes that the qualifying retirement age for women workers is reduced to age 60. Since, by and large, women workers do not have dependents who are protected by the program, many of them would otherwise overpay. Those self-employed persons who have relatively high earnings would overpay if they are charged as much as 1½ times the employee rate.

ployees the level-premium rate would be deflationary for some time.<sup>8</sup>

It has also been argued that a reserve as large as would be developed if the level-premium rate were charged (perhaps as much as \$200 billion under current proposals) would create strong political pressure for liberalization of the program beyond what it could afford. Other opponents feel that a long-continued excess of income over outgo would encourage extravagant Federal expenditures by providing a ready source of funds which the Treasury could borrow for general purposes. The proponents of building up a large reserve, whether through this plan or through a Government contribution paid into the trust fund from the beginning of the program, argue that such a reserve is the best way to make sure that the benefits will be paid when due.

Although there is difference of opinion over whether a large reserve is desirable, there is general agreement that in a Government program full-reserve financing is not necessary. In private insurance, because there is no guarantee of the continuous sale of new policies for a particular company, reserves are required in an amount sufficient to cover liabilities at all times. If the company stops writing new business, the protection for which people have already paid can be provided from these reserves. In social insurance a full reserve of this sort is not needed since it is not necessary to sell policies to new people to keep going. The entrance of new people into the system is guaranteed by the mandatory nature of the program, and the guarantee of solvency is in the taxing power of the Government. The level-premium-rate plan places considerable reliance on a large reserve but would not result in a full reserve sufficient to cover all liabilities.

### **Pay-As-You-Go**

The other widely discussed alterna-

Charging the actuarial rate from the beginning of the program would also be deflationary at first, although considerably less so than charging the level-premium rate. Partly for this reason it is suggested later in this paper that the imposition of the full actuarial rate be postponed until the amount being paid out in benefits is greatly increased.

tive is a plan with contribution schedules based on the idea of "pay-as-you-go." Under this plan the contribution rate is not related to the value of the protection afforded. It is set at the point at which contributions will meet disbursements in a given year or over a period of a few years.

The pay-as-you-go method, which equates income from contributions and short-term expenditures, would result in rates that are relatively very low in the early years of the program and that increase gradually over the first half century of operation. When the system is just starting, only a very few workers aged 65 and over are able to meet the requirement of a certain minimum amount of employment after the beginning date. As the program matures, however, a larger and larger proportion of those attaining age 65 will have had an opportunity to earn wage credits and to qualify for benefits.

Not only will there be a great increase in the *proportion* of those over age 65 who will be entitled to benefits, but the *total number* of those aged 65 and over is expected to increase by roughly 75 percent during the next 25 to 30 years. These two factors taken together explain why the annual cost of old-age benefits will increase each year from now until the end of the century.

Combined contribution rates under a pay-as-you-go system would look like this if the low-cost estimates for the Social Security Administration proposals (exclusive of disability benefits) were taken: 1950, 1.0; 1960, 2.9; 1970, 4.4; 1980, 5.6; 1990, 6.5; 2000 and thereafter, 6.6. If the high-cost estimates were taken the rates would be like this: 1950, 1.5; 1960, 4.1; 1970, 6.0; 1980, 8.0; 1990, 9.9; 2000 and thereafter, 11.2.

A pay-as-you-go system financed exclusively from pay-roll contributions makes little sense in an old-age retirement program. From the standpoint of persons who spend a working lifetime under the program, it seems somewhat absurd to charge first a combined employer-employee rate of only 1.0 or 1.5 percent and then gradually to increase the rate to perhaps as much as 11 percent. For social insurance just as for private annuities, it is much easier for both workers and

employers to pay a more or less level rate over a working lifetime.

Even more important, under a pay-as-you-go system financed entirely by employee-employer contributions, a large proportion of those who come into the system after the top rate is reached would pay more in earmarked social security taxes than would be necessary to cover the cost of the protection that they would receive. Because, in this system, the rates would be kept below the actuarial value of the benefits for many years, the resulting deficit of contribution would be too large to be met entirely by the employer. Therefore, part of the contributions made by employees of the next and future generations would have to be used as well.

To charge employees a contribution rate in excess of the value of the benefits in order to finance this deficit will certainly be considered unfair. Because of its regressive nature (a flat tax levied on only the first \$3,000 or \$4,800 of income), the pay-roll tax is a doubtful way of raising general funds; its justification rests on the quid pro quo arrangements of a genuine contributory system of insurance benefits.

### **Other Possibilities**

Certain modifications of these three basic plans have been suggested from time to time and deserve mention.<sup>9</sup> For example, the rate—instead of being based on a strict pay-as-you-go plan—might be increased at regular intervals, say every 10 years, with the goal of keeping the system on an approximately current-cost basis. This modification does not, of course, remove the basic objections to the pay-as-you-go idea.

Another possibility, a modification of the actuarial-rate plan, is the Brit-

<sup>9</sup> All the plans discussed in this paper are based on the assumption that the system will continue to be supported in large part by equal contributions from employers and employees. No attempt is made to explore radically different methods of financing, such as complete support from general revenues or from general revenues and either the employee or employer contribution alone, or support from special taxes on transactions or income, earmarked but, from the viewpoint of the one who pays the tax, completely unrelated to the value of the protection afforded.

ish practice of a Government contribution covering more than the deficit of contribution of older workers and resulting in a subsidy for young entrants as well. In the American system with its graduated benefit formula the additional amount would be a subsidy for low-paid workers. Under the actuarial-rate plan as described above, the contribution of low-paid workers and their employers does not cover the cost of benefits even in the long run. If the actuarial rate is charged, part of the employer contribution paid on the wage of high-paid workers is shifted to pay for the benefits of low-paid workers. (The high-paid worker gets more than the value of his own contribution but not the full value of the combined contribution.) With an additional subsidy, such as that provided in the British system, part of the deficit of contribution of low-paid workers as well as the deficit of contribution of older workers would come from general revenues rather than entirely from the employer contribution. Since the deficit of contribution of older workers alone, however, is as much as one-third of total costs on a level-premium basis—or roughly one-half of eventual annual disbursements if the Government contribution is deferred for several decades—it is probably the maximum that general revenues should now be committed to support.

Still another possibility would be to provide for an eventual Government subsidy less than sufficient to cover the full deficit of contribution of older workers. Under one such plan, the maximum employee rate would be set at a point which would be intended roughly to equal the value of old-age and survivor protection for young, high-paid workers, and a part of the employer contribution as well as a Government subsidy would go to meet the benefit cost for older workers. The maximum employee rate, to be reached in a series of step-ups, would be about half the level-premium rate or the same rate as would be charged employees from the beginning under the level-premium plan.

This approach differs from the actuarial-rate plan in permitting a combined employer and employee rate in

excess of the value of the benefits to a generation of workers continuously under the program. If the self-employed are to be charged even as much as one and one-half times the employee rate, many of those under the program for a working lifetime would under this plan pay more than the value of the protection that they receive.

The Advisory Council of 1948 suggested that the maximum combined contribution rate should be set arbitrarily at a point that would result eventually in an equal division of annual contributions among employers, employees, and Government. The Council based its recommendation in large part on the rationale of the actuarial rate but was reluctant to commit Government revenues to as large a share in meeting future costs as the actuarial-rate plan would require. The Council said in part:

The old-age and survivors insurance program starts with an accrued liability resulting from the fact that, on retirement, the present members of the labor force will not have contributed toward their benefits over a full working lifetime. Furthermore, with the postponement of the full rate of contributions recommended above, even young people who enter the labor force during the next decade will not pay the full rate over a working lifetime. If the cost of this accrued liability is met from the contributions of workers and their employers alone, those who enter the system after the full rate is imposed will obviously have to pay with their employers more than is necessary to finance their own protection. In our opinion, the cost of financing the accrued liability should not be met solely from the payroll contributions of employers and employees. We believe that this burden would more properly be borne, at least in part, by the general revenues of the Government.

Old-age and survivors insurance benefits should be planned on the assumption that general taxation will eventually share more or less equally with employer and employee contributions in financing future benefit outlays and administrative costs. The timing and exact proportion of this contribution, however, cannot be decided finally now.<sup>10</sup>

<sup>10</sup> S. Doc., pp. 46-47.

Most of the plans that provide for a Government contribution may be considered variations of either the reserve financing of the level-premium-rate plan or the current-cost financing of the pay-as-you-go approach. If the full employer-employee rate selected as desirable is paid from the beginning of the program or shortly thereafter and the Government contribution is paid into the trust fund from the beginning, the combined rates, including the Government contribution, equal the level-premium rate. If, on the other hand, the desirable employer-employee rate is considered an ultimate rate to be reached gradually as costs increase and the Government contribution is introduced only when benefit disbursements exceed contribution income, the combined rates, including the Government contribution, equal the rates under a pay-as-you-go plan. It is also possible, of course, to adopt a middle ground between reserve and current-cost financing. The actuarial plan, for example, results in reserve financing, current-cost financing, or something in between, depending on when the Government contribution is introduced and when the full actuarial rate is imposed.

### *Which Plan?*

For the reasons suggested above, neither the level-premium rate nor the strict pay-as-you-go plan seems completely acceptable as a basis for determining the employer-employee rate. Moreover, the various modifications of these plans offer little in the way of rationale that is convincing to the general public or the proponents of one or the other of the major alternatives.

The actuarial rate might well, however, offer a reasonable ground for agreement. It is as firmly based in sound annuity and actuarial principles as is the level-premium rate. In fact, it is the level-premium rate for those who have an opportunity to pay over a working lifetime and provides for them a completely self-financing system. Yet the actuarial rate, considered as the maximum employer-employee rate to be arrived at gradually over the first decade of operation and assuming that the Gov-

ernment contribution will be postponed as suggested by the Committee on Economic Security, largely avoids the disadvantages and misunderstandings associated with a huge reserve. Unlike the pay-as-you-go plan, it maintains the principle that the direct contribution should not exceed the value of the benefits.

Perhaps most important of all in a program of contributory social insurance, the actuarial rate maintains over the long run a close relationship between the value of the protection and the rate of contribution; each generation after the first pays its own way but no more. The social cost of paying full-rate or nearly full-rate benefits in the early years of the program—a cost unrelated to the value of the protection for those who come later—is borne by general taxation, which is relatively progressive and relates the amount of tax much more closely to “ability to pay” than does the pay-roll tax. Under the pay-as-you-go or the level-premium plan or the various modifications of these plans, part or all of this cost is borne by the regressive employee contribution or by the employer pay-roll tax, which in large part may be shifted either to the consuming public or to wage earners.

### *A New Schedule of Contribution Rates*

If Congress were to accept the actuarial rate as the desirable combined employer-employee rate for the long run, it would also be necessary to decide how soon this ultimate rate should be imposed and when the Government should start paying its share of the costs of the program.

In the opinion of the writer the most practical form of the actuarial rate plan is somewhere between reserve and current-cost financing. It is important that the ultimate rate be reached gradually, as this results in less disturbance to business and industry than imposition of the ultimate rate at the very beginning of the program. Furthermore, as suggested earlier, it is now desirable to minimize the deflationary effects resulting from an excess of income over outgo during the early years. On the

other hand, there is no need to increase the future burden on general revenues to the extent required by strict current-cost financing and the postponement of all increases in the tax rate until actually needed to meet benefit costs.

It is probably most acceptable to time the first increase in rates with a substantial increase in benefits. An increase to 1½ percent for employees and 1½ percent for employers should therefore take place on the effective date of the new benefit amounts. Such an increase in contribution rates in 1950 is already provided for in the present act.

On the assumption that improvements in the program will approximate the cost of the recommendations made by the Advisory Council, a further rise to 2 percent would be needed to reach the actuarial rate.<sup>21</sup> Determining how soon it would be wise to impose this maximum rate is a matter of balancing broad fiscal and political considerations against the internal requirements of the social insurance system. If the present contribution schedule in the act were allowed to stand, the full actuarial rate for the cost equivalent of the Advisory Council plan would be reached at the beginning of 1952. From the standpoint of the insurance system alone, this would be the most desirable course. Postponing the imposition of the full rate means postponement of the time when benefits for younger workers entering the system would be completely self-financed and thus increases the eventual burden on general revenues.

On the other hand, if it is considered desirable on broad economic or political grounds to keep down the excess of income over outgo in the early years, the 1½-percent rate might be kept until, as recommended by the Advisory Council, the income from this rate “plus interest on investments of the trust fund is insufficient to meet

<sup>21</sup> If permanent and total disability protection is added to the program, an additional contribution to cover the cost of these benefits on a level-premium basis might well be introduced immediately. The level-premium rate for a relatively generous program would not exceed 1 percent for employers and employees combined and would probably be in the neighborhood of ¾ of 1 percent.

current benefit outlays and administrative costs.” The Council estimated that this would be likely to occur in 1957.

Whether the full actuarial rate were imposed in 1952 or 5 years later, it would be an important clarifying step to have it recognized as the proper rate that should be charged for the long run and reached as soon as practicable.

Under this method of financing, the generation reaching age 65 after paying the actuarial rate for a lifetime under the program will, with their employers, have paid enough to finance their own benefits. The payment from general revenues will be replacing the contributions of younger workers and the interest thereon which were used in the early years to pay the benefits of those who did not contribute long enough or at a high enough rate to pay their own way.

This Government contribution would in all likelihood be introduced at the time contributions based on the actuarial rate, plus interest on the trust fund, prove insufficient to meet benefit disbursements and administrative expenses. In this way the trust fund would be maintained at its highest point, and the greatest benefit would be derived from the interest earnings on the fund. Under this plan the Government contribution would first be needed about 1965. It would be small in the beginning but grow eventually to about one-half of annual disbursements.<sup>22</sup>

<sup>22</sup> It would, of course, be at least theoretically possible to introduce the Government contribution sooner and thus to keep down its ultimate size. An appropriation to the trust fund from general revenues at a time when income from employer and employee contributions exceeds current costs would have the effect of increasing the earning reserve and substitute future interest payments for part of the Government contribution. There is no real saving to the Government, however, in this procedure. Its general fiscal position is the same whether the general revenues are used to reduce the national debt or prevent further increases in the debt, or are appropriated to the trust fund. Whichever of these courses is followed, the amount of the Federal debt held in private hands will be smaller than it would otherwise be by the amount of taxes in question, and consequently any one of the alternatives saves an equal amount of interest for the Government.

## ***Keeping the Benefits Current As Wages Increase***

In addition to the problem of financing the deficit of contribution of older workers, there is one other problem which must be solved in establishing a satisfactory contribution schedule. Over the past 150 years there has been a tendency for wages to increase substantially, and there is good reason to expect this long-range trend to continue. The advance will, of course, include periods of decline in the future as it has in the past, but the long-run course of development is quite clear.

The problem created for the retirement program by increasing wages is this: dollar amounts that seem satisfactory as benefits in 1949 are very likely to be much too low by 1980. Because of the higher wages then current, reflecting probably both greater productivity and higher prices, any level of benefits established now will probably appear quite inadequate when younger workers now contributing are ready to retire. A retirement payment which was intended to be, say, a 30-percent replacement of previous wages turns out to be a 20-percent replacement or less.<sup>13</sup>

As indicated by the Advisory Council, "in setting contribution rates for

<sup>13</sup> The Social Security Administration proposal for basing benefits on an average of the 5 consecutive years of coverage in which the individual's wages were the highest rather than on the average over a working lifetime is designed partly to meet this problem in the benefit structure. Even under this formula, however, if wages rise, average benefits will be a lower percentage of average wages than if wage levels were to remain constant.

the system, the essential question is probably not 'What percentage of pay roll would be required at some distant time to pay benefits equal to the money provided in the Council's recommendation?' Rather it is 'What percentage of pay roll will be required to pay benefits representing about the same proportion of future monthly earnings that the benefits recommended by the Council represent of present monthly earnings?' "<sup>14</sup>

The rates quoted throughout this paper are intended to answer this second type of question. If the rates quoted are put into effect and, as is likely, wages rise over the long-range future, benefits may be constantly liberalized without changing the contribution rates. This is possible because as wages go up the same contribution rate brings in more dollar income, and the effect of increasing wages on benefit amount under the formulas proposed is not as great as the increase in this dollar income. The estimates used here are based on the idea, therefore, that in the long run the formula in the Social Security Act will be revised as wages go up, to provide benefits which on the average represent a constant percentage of average wages under the program. If wages rise and benefits are not liberalized, the contribution rates discussed here are higher than necessary.

Putting the problem a different way, it may be said that the benefit formulas proposed by both the Administration and the Advisory Council could be financed, in all probability, with lower contribution rates than

<sup>14</sup> *Ibid.*, p. 11.

suggested in this paper, because, in the estimates used, wages were assumed to remain constant. It seems prudent, however, to charge the higher rates and allow for liberalizations in the formulas since, as wages increase, the benefits resulting from the formulas as now written will seem inadequate.

## ***Conclusion***

Lack of a plan for the long-range financing of the old-age and survivors insurance program is at present a source of doubt and confusion about that program. It is important to public confidence that a clear plan be adopted and that a schedule of contribution rates be included in the law and adhered to. In the opinion of the writer, the actuarial rate should be the maximum employer-employee rate and should be so figured as to allow liberalization in the benefit formula as wages increase over the long-run future. This rate should be arrived at gradually, the first step-up to come when benefits are liberalized and the second no later than the estimated time (about 1957) when a continuation of the old rate would result in a reduction in the trust fund. The Government contribution should be introduced when the income from the actuarial rate plus interest on the fund is insufficient to cover current disbursements. The Government's obligation to eventually make up the deficit of contribution of older workers and those who in the early years contribute at less than the actuarial rate should be explicitly stated in the legislation.