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A COMPARISON OF FOUR MODELS OF TAXATION IN THEIR TREATMENT OF SOCIAL SECURITY CONTRIBUTIONS AND RETIREMENT BENEFITS

JOHN L. BROWN†

INTRODUCTION

This paper is an analysis of how four different models of taxation apply to contributions and benefits in the social security retirement system. The four models and their applications are as follows:

1. **The accretion model**: (a) the present value of contributions, or payroll taxes, from taxpayer and employer, are included in taxpayer’s tax base; (b) growth in the value of contributions is computed yearly and included in the tax base; (c) upon retirement, benefits received less adjusted basis are taxed.

2. **The consumption model**: (a) all contributions are excluded from taxpayer’s tax base; (b) all growth in contributions is excluded from the tax base; (c) upon retirement, benefits are taxable to the extent they are consumed, without recovery of basis.

3. **The partially tax-prepaid model (pre-1984 model)**: (a) the taxpayer’s contributions are included in the taxpayer’s tax base; (b) growth in contributions is excluded from the tax base; (c) upon retirement, benefits are received tax-free.

4. **The hybrid model (current model)**: a hybrid of models 2 and 3 above, in which: (a) the taxpayer’s contributions are included in the taxpayer’s tax base; (b) growth in contributions is excluded from the tax base; (c) upon retirement, one-half of benefits are taxed if half the taxpayer’s retirement benefits plus other income exceed certain levels.

As applied to the unique nature of the social security retire-

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1. To simplify the analysis this article will not address other aspects of the social security system, such as survival benefits, disability benefits, spouses' benefits or children's benefits.
ment system, these four models will be compared as to how equally they tax individuals of relatively equal income, both before and after retirement, and how progressive they are in taxing individuals across income levels, before and after retirement. In general, the results of this comparison are that the consumption model is the best at treating equals equally, before and after retirement. It also appears to be the least regressive in taxing individuals before retirement. After retirement, the hybrid model may be the most progressive, but there is some question about whether its progressivity is desirable.

I. IMPORTANT CHARACTERISTICS OF THE SOCIAL SECURITY RETIREMENT SYSTEM

From the individual’s point of view, the social security retirement system is basically a method of retirement insurance under which the Social Security Administration (SSA) first withholds portions of an individual’s earned wages throughout his or her working life. When the individual retires, the system then pays out a monthly benefit that is related in some way to the savings he or she contributed. There are a number of differences, however, between ordinary saving for retirement and social security, of which at least four should be considered when comparing different tax treatments of social security contributions and benefits.

Mandatory Nature of System

With few exceptions, all those who are employed are subject to the payment of contributions (payroll taxes), and none who are covered by the system has the power to opt out. Furthermore, contributions cannot be retrieved from the system except in the form of benefits after retirement. Because contributions are required, and from the taxpayer’s point of view, locked into the system, the taxpayer has no freedom to make other investment or spending choices.

Progressive Benefit Structure

The social security retirement system is not designed to pay all individuals in proportion to their contributions, as ordinary savings and retirement accounts are. Instead, the benefit

structure is progressive, paying a higher ratio of benefits to contributions for people who had lower earnings records. This complicates the analysis of the taxation of contributions and benefits because the progressivity of the benefit structure can itself be viewed as an extra tax on beneficiaries who had relatively high earnings records.

Pay-As-You-Go Funding

Unlike private retirement plans, which are funded for retirees in advance, social security is funded on a pay-as-you-go basis. The payroll taxes of today's employees and employers are not stashed away for their future; they are paid to today's retirees. The present value of an individual's expected benefit from social security, then, is not only dependent on factors normally relevant to retirement savings—life expectancy, expected earnings rates, and rate of inflation—but is also dependent on the receipt of adequate contributions from future generations, especially for younger individuals, which is in turn dependent on the numbers of people in employment in the future, and the rate of growth in the economy. These factors make the present value of expected benefits extremely difficult to determine accurately, raising questions about how and whether such values should be taxed.

The Incidence of the Payroll Tax

For each employee, the payroll tax is a flat-rate tax paid to the social security trust fund, calculated on the employee's wages (up to a wage ceiling), and assessed equally on the employer and the employee. In the current year, 1989, the tax rate is 6.06% and the wage ceiling per employee is $48,000. An employee with $70,000 in wages in 1989, will have paid the social security trust fund $2,909 in payroll taxes (6.06% of $48,000, the maximum wage subject to the tax). That amount

7. Actual withholding of wages is at a rate of 7.51% of the employee's wage base, because the social security tax rate is combined with the hospital insurance tax rate of 1.45%. 26 U.S.C.A. §§ 3101, 3121 (West 1989); 42 U.S.C.A. § 430 (West 1983).
will have been matched by the employer. An employee with $35,000 in wages in 1989 will have paid $2,121 in payroll taxes (6.06% of $35,000), matched by the employer.

The above examples show that it is incorrect to refer to the payroll tax on the whole as a flat-rate tax. If it were, then the tax on the $35,000 wage earner would have been one-half the tax on the $70,000 wage earner. In fact, it is 72.9% ($2,121 of $2,909). Although the tax is flat up to the wage ceiling of $48,000, beyond that it is a regressive tax, decreasing in percentage the higher the wage. The effective tax rate on the $35,000 wage earner is 6.06%, but on the $70,000 wage earner it is reduced to 4.155%.

The tax is regressive for another reason—it is imposed on wages only, not on all income. Since non-wage income is free from any payroll tax, the more of such income a person has the more the payroll tax falls off as a percentage of his or her total income. It has been shown that this will tend to occur among more highly paid individuals, because the higher a person’s income, the greater the amount and percentage of income that comes from sources other than wages.8

The regressivity of the payroll tax is magnified further by the “pass-along” practices of employers. Although on paper the incidence of the tax is shared equally by the employer and the employee, empirical studies have shown that a substantial part of the employer’s share is passed along to the employee in the form of reduced wages to compensate for the employer’s obligation.9 For wage rates above $48,000, this drag on employee’s wages would lessen, because the employer’s liability ends at the $48,000 salary level. If, in the examples above, the employer passed its entire payroll tax burden on to the employees, the employee who received $35,000 in wages would have an effective payroll tax of $4,242, or 12.12%, while the employee paid $70,000 would have an effective payroll tax of $5,818, or 8.31%. The pass-along increased the lower wage earner’s tax rate by 6.06%, but only increased the higher wage earner’s rate by 4.155%.

9. A. MUNNELL, supra note 8, at 85-89.
Taking the above characteristics of the social security retirement system as given, the question is how well each of the four models of taxation provides horizontal and vertical equity.

II. ACCRETION AND CONSUMPTION COMPARED

Under the accretion model, income equals consumption plus the change in value of accumulated wealth between accounting periods.\(^\text{10}\) Consumption refers to the "ultimate use or destruction of economic resources," and accumulated wealth refers to the retention of those resources.\(^\text{11}\) An accretion model income tax will seek to include in an individual's tax base all consumption plus accumulated savings on an annual basis, whether or not those savings are cashed out. The accretion model therefore will assess an equal tax on two taxpayers with $50,000 of earnings in a year, even though one taxpayer consumes the entire $50,000 in the year and the other taxpayer consumes $25,000 and saves $25,000. In other words, the pure accretion model ignores the uses to which the income is put.

The consumption model, on the other hand, seeks to include only consumption in an individual's tax base. If one taxpayer earns $50,000 but consumes only $25,000, and another taxpayer earns $25,000 and consumes all of it, the two will be taxed equally. The consumption model treats equal consumers equally, regardless of their accumulated wealth. It leaves the taxation of wealth to the inheritance tax system.\(^\text{12}\)

The debate about whether it is better to tax equal consumers equally or equal income-receivers equally is beyond the scope of this article, but advantages and disadvantages of doing each can be seen in their applications to the social security retirement system.

1. Measurement of Income

If social security is perceived as a series of investments followed by the receipt of returns on those investments, then payroll taxes are analogous to savings. Under the accretion


\(^{12}\) Andrews, supra note 10, at 1169.
model, where the uses to which income is put (consumption or savings) are ignored, the value of social security contributions ("investments") would be subject to income tax. If one were setting aside money in a savings account for retirement, the taxable value of that investment would simply be the amount of money invested. It may not be so simple, however, to place a value on social security contributions. Money put in a savings account has value by virtue of the fact that it can be marketed, that is, it can be saved or traded for something of equal value.\textsuperscript{13} Social security contributions, however, are not freely marketable, because they are required by law, and because the return on contributions is put off until retirement and the value of that return is a matter of speculation.\textsuperscript{14} The portion of the taxpayer's income earmarked for social security contributions simply is not worth as much to the taxpayer (or anybody else) in present value as the rest of the taxpayer's earnings. In fact, if a retiree were to look back over the span of his or her working career, the retiree would see that some social security contributions had no effect at all on the monthly amount of benefits received, and therefore could arguably be deemed valueless.\textsuperscript{15} Contributions only have value to the extent that they play a role in the calculation of the taxpayer's retirement benefits. There are so many variables that go into that calculation (years of earnings, amount of earnings, marital status, inflation, and solvency of the social security trust fund, to name a few), that the calculation of the present value of a particular contribution, from a market point of view, would be guesswork. Likewise, the calculation of the value of accumulation of the contribution would be a matter of speculation; and the measurement of income on the receipt on benefits would be affected, because the measurement of contributions and benefits would be reflected in the taxpayer's basis in his or her investment.

For the sake of simplification, an accretion model proponent may favor using the actual value of the taxpayer's social secur-

\textsuperscript{13} Warren, \textit{supra} note 11, at 1086-90.

\textsuperscript{14} Boskin, \textit{supra} note 6, at 21, 33.

\textsuperscript{15} In calculating an individual's eligibility, the SSA need only find forty calendar quarters of sufficient earnings (with contributions) in order to find an individual eligible. 42 U.S.C.A. § 414 (West 1983). In calculating benefits, the SSA then ignores the five years of the individual's lowest wages (and contributions). 42 U.S.C.A. § 415 (West 1983 & Supp. 1989).
ity contribution as the present value, but it is unlikely that any reliable estimate of annual growth on the investment can be made. Of course, if no annual tax on growth is imposed, the model would no longer be a pure accretion model, and the taxpayer would have the benefit of deferral of taxation on the accumulation of income from the contributions. The choice, then, is between an inaccurate estimate and taxation of annual growth, perhaps with a later correction based on the actual return on investment, or tax deferral.

The consumption model experiences no income measurement problems. Because social security contributions are savings, they are not included in the income tax base, so the model is not concerned with measuring them. Similarly, the model is not concerned with the measurement of benefits when received and consumed, because when benefits are received they are freely marketable. The model is not concerned with recovery of basis because none of the contributions or accumulation is taxed. Clearly, the consumption model would be much easier to put into practice than the accretion model.

2. Equal Treatment of Equals

1. Wage Earners Versus Non-Wage Earners. The payroll tax does not provide horizontal equity, mainly because it is a tax on payroll only. Those who have total income equivalent to wage earners from non-employment sources escape the payroll tax. Therefore, an individual with non-employment income will have more money available than an individual with an equal income consisting of wages.

Suppose there are three people with equal pre-tax (payroll tax and income tax) income: A, a $30,000 wage earner; B, with an income of $30,000, half of which is from wages and half from capital gains and interest on savings; and C, a retiree with a non-wage income of $30,000. The payroll tax on A (employee's share) would be $1,818; the payroll tax on B (employee's share) would be $909; and the payroll tax on C would

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17. Warren, supra note 11, at 1100-05.
18. The term non-wage earners is not meant to encompass self-employed individuals, who do participate in the social security retirement system, but at different contribution rates from those in covered employment. 26 U.S.C.A. § 1401 (West 1988).
be $0. After assessment of the payroll tax, then, B would have more available income than A, and C would have more than B.

The accretion model tax would include the present values of the payroll taxes in the tax bases of A and B (both employee's and employers shares), along with any growth that had built up during the year in A's and B's investment in social security, if such a thing could be measured. If we assume that the present values of A's and B's total payroll taxes were at least equal to the actual amounts of A's and B's shares of the taxes, then the accretion model would at best preserve the inequities caused by the payroll tax system by including the social security contributions in the tax base even though they were unavailable to A and B, and at worst would exacerbate the inequities by including in A's and B's income any growth that had built up in their investments in social security. A would be taxed the most, then B, then C, even though A would have the least amount of available income to pay the tax, B next, and C the most.

The consumption tax, on the other hand, would only tax A, B, and C on their available, consumed income. The payroll taxes and any accumulation of them would not be included in the tax base. If we assume that of their $30,000 pre-tax incomes, A, B and C all “saved” equivalent amounts (A: $1,818 in payroll taxes, B: $909 in payroll taxes and $909 in savings account, and C: $1,818 in a savings account), then all three would be taxed at the same rate. If the only savings of any of them had come from payroll taxes, and all the rest of the income were consumed, C would have the highest tax base, then B, then A. The consumption model, then, tends to diminish the horizontal inequities of the payroll tax.

2. From a Lifetime Perspective. When considered from a lifetime perspective, the accretion model seems to correct some of the horizontal inequity between people of approximately the same age.

Assume that A's and B's patterns of income remain the same throughout their working lives, so that, on the threshold of retirement they have had equal total incomes, but A has contributed twice as much in payroll taxes as B has. Because social security benefit rates are progressive in the sense that those with lower covered earnings will have a higher rate of return,
the system again puts A at a disadvantage relative to B. The difference between what A would have gotten if the benefit structure were directly proportional to contributions, and what he actually receives, can be seen as an extra tax on A.

Here the accretion model tax will help A relative to B. A’s lower rate of return will mean that a greater proportion of his social security retirement benefit will be a recovery of basis than will be true for B, so more of A’s benefit will be excluded from the tax base when received.

Assuming that B’s rate of return is twice as good as A’s, this is illustrated using simple figures as follows:

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social security contributions $200</td>
<td>$100</td>
</tr>
<tr>
<td>Gross return $250</td>
<td>$150</td>
</tr>
<tr>
<td>Profit $50</td>
<td>$50</td>
</tr>
<tr>
<td>30% tax $15</td>
<td>$15</td>
</tr>
<tr>
<td>After-tax return $235</td>
<td>$135</td>
</tr>
</tbody>
</table>

- Ratio of A’s contributions to B’s: 200/100 = 2
- Ratio of A’s gross return to B’s: 250/150 = 1.67
- Ratio of A’s after-tax return to B’s: 235/135 = 1.74

As illustrated, the accretion model tax reduces B’s advantageous rate of return relative to A. In this particular case, since A and B are assumed to have equal total incomes, the accretion model tax moves toward an equitable result.

Because the consumption model will tax benefits fully (assuming they are fully consumed), allowing no recovery of basis, it appears to leave intact the extra tax on A relative to B:

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19. After calculating an amount known as the average indexed monthly earnings (AIME) for an individual, the SSA calculates the individual’s primary insurance amount, or basic monthly benefit, by adding 90% of the first $310 of AIME, 32% of the AIME above $310 to $1866, and 15% of any AIME above $1866. 42 U.S.C.A. § 415 (West 1983 & Supp. 1989).

20. B. STEIN, supra note 4, at 144–48, 246. Professor Stein also compares low and high wage earners with equal total incomes in his analysis.

21. This is consistent with Professor Warren’s contention that the accretion tax is concerned with the outcomes of investment. Warren, supra note 11, at 1100–05.
Social security contributions
$200 $100
Gross return
$250 $150
30% tax on fully consumed return
$ 75 $ 45
Net consumption
$175 $105

Ratio of A’s contributions to B’s: 200/100 = 2
Ratio of A’s gross return to B’s: 250/150 = 1.67
Ratio of A’s net consumption B’s: 175/105 = 1.67

The fact that A gets a worse deal than B on his investment appears not to be taken into consideration by the consumption model. The flaw in this analysis, however, is that it is not taking a lifetime perspective. Under the consumption model, B could not have reached retirement with the same total income as A but only half the social security contributions, without either having consumed (and been taxed on) the difference between their contributions or having saved the difference and carried it with him, along with a potential tax when the savings are consumed. The model in Table A of a social security system shows how, from a lifetime perspective, the consumption tax balances its higher taxation of A during retirement with higher taxation of B before retirement. (The model assumes that A and B consumed all their income except their social security contributions.)

It can be seen from the table that the consumption model has in a sense already taken basis into consideration by excluding contributions from income. During A’s and B’s pre-retirement years, A was taxed only $33,818.40 while B was taxed $34,909.20, because A’s excludable social security contributions were greater than B’s. The contributions are allowed to grow tax-free under the consumption model, yielding after retirement more income per dollar invested than the accretion model tax would yield. The lifetime effect of the consumption model tax, then, is to tax A less relative to B in pre-retirement years, reflecting the fact that A has less income available for consumption than B at that time, to allow contributions to grow tax-free, and to tax A more relative to B during retirement, reflecting the fact that A will have more available than B for consumption at that time.

This pattern of taxation is superior to the accretion model’s for two reasons. First, it more accurately reflects the taxpayer’s ability to pay taxes by taxing only available income.
TABLE A: CONSUMPTION MODEL TAX ON TWO TAXPAYERS WITH EQUIVALENT TOTAL INCOME BUT DIFFERENT EARNINGS

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Taxable S.S.</td>
<td>Taxable S.S.</td>
</tr>
<tr>
<td>Income</td>
<td>Consumed (6.06%)</td>
<td>Income</td>
</tr>
<tr>
<td>Gross</td>
<td>(Consumed)</td>
<td>Gross</td>
</tr>
<tr>
<td>$30,000</td>
<td>$28,182</td>
<td>$30,000</td>
</tr>
<tr>
<td>$30,000</td>
<td>$28,182</td>
<td>$30,000</td>
</tr>
<tr>
<td>$30,000</td>
<td>$28,182</td>
<td>$30,000</td>
</tr>
<tr>
<td>$30,000</td>
<td>$28,182</td>
<td>$30,000</td>
</tr>
<tr>
<td>$120,000</td>
<td>$112,728</td>
<td>$120,000</td>
</tr>
</tbody>
</table>

Retirement:

<table>
<thead>
<tr>
<th></th>
<th>S.S. Return</th>
<th>Taxed at 20%</th>
<th>Taxed at 30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 5</td>
<td>$2,272.50</td>
<td>$454.50</td>
<td>$681.75</td>
</tr>
<tr>
<td>Year 6</td>
<td>$2,272.50</td>
<td>$454.50</td>
<td>$681.75</td>
</tr>
<tr>
<td>Year 7</td>
<td>$2,272.50</td>
<td>$454.50</td>
<td>$681.75</td>
</tr>
<tr>
<td>Year 8</td>
<td>$2,272.50</td>
<td>$454.50</td>
<td>$681.75</td>
</tr>
<tr>
<td>$9,090.00</td>
<td>$1,818.00</td>
<td>$2,727.00</td>
<td></td>
</tr>
</tbody>
</table>

(25% apprec. on S.S. contribution)

<table>
<thead>
<tr>
<th></th>
<th>S.S. Return</th>
<th>Taxed at 20%</th>
<th>Taxed at 30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 5</td>
<td>$1,363.50</td>
<td>$272.70</td>
<td>$409.05</td>
</tr>
<tr>
<td>Year 6</td>
<td>$1,363.50</td>
<td>$272.70</td>
<td>$409.05</td>
</tr>
<tr>
<td>Year 7</td>
<td>$1,363.50</td>
<td>$272.70</td>
<td>$409.05</td>
</tr>
<tr>
<td>Year 8</td>
<td>$1,363.50</td>
<td>$272.70</td>
<td>$409.05</td>
</tr>
<tr>
<td>$5,454.00</td>
<td>$1,090.80</td>
<td>$1,636.20</td>
<td></td>
</tr>
</tbody>
</table>

(50% apprec. on S.S. contribution)

Assuming 30% income tax pre- and post-retirement:

Ratio of A’s lifetime taxes to B’s: $36,545.40 / 36,545.40 = 1
Ratio of A’s net consumption to B’s: $85,272.60 / 85,272.60 = 1

Assuming a 30% increase tax pre-retirement and a 20% increase tax post-retirement:

Ratio of A’s lifetime taxes to B’s: $35,636.40 / 36,000 = .989
Ratio of A’s net consumption to B’s: $86,181.60 / 85,818 = 1.004

Second, because of the tax deferral characteristics of the consumption model, it provides more money to retirees than the accretion model, achieving the main goal of the social security system more efficiently than the accretion model.22

The consumption model does not, however, cancel the advantage given to B by the social security benefit structure. If benefits were proportional instead of progressive—for instance, if A’s return were $10,908 instead of $9,090 (proportional to B’s return of $5,454 on $3,636 of contributions)—A would have $86,545.20 in net consumption compared to B’s

22. As the table shows, in addition to tax deferral there is a benefit if the greater consumption occurs in years of lower earnings (20% tax rate as opposed to 30% rate).
Instead, because of the progressive benefit structure, A’s and B’s net consumption is equal. This not only causes inequities between people of equal incomes and different contribution levels, it also causes inequities between people of different incomes, as will be seen in the next section.

3. Fair Treatment Across Income Levels

1. Before Retirement. As has been seen above, the payroll tax is regressive because it falls on employment income only, and is imposed only on the first $48,000 of an individual’s wages. It has a greater impact on people at the lower end of the income scale because a greater portion of the income of low- and middle-income people consists of employment income subject to the payroll tax. As wage rates rise above $48,000, the payroll tax takes less and less of a percentage of an individual’s wages.

One could design either the consumption model or the accretion model tax so as to minimize the regressive effect of the payroll tax simply by increasing the slope of the progressive income tax to compensate for the payroll tax. Since payroll taxes are part of the tax base in an accretion model income tax, adjustments to the progressivity of the income tax will have a greater impact in the accretion model than in the consumption model, where payroll taxes are excluded from the income tax base. The higher the income level, however, the more the adjustments should have the same effect, as the payroll tax becomes less and less of a factor.

2. After Retirement. It is not clear that the progressive rates of benefits in the social security retirement system, when considered as extra taxes on people who had higher earnings levels when they were working, will yield a progressive tax rate when based on the current income levels of retirees. The assumption of the SSA is that people who had high earnings records will probably have more money after retirement than those who had low earnings records, so they will not need as

23. A’s retirement benefits would increase by $1,818.00 and be taxed at 30%, for an additional net consumption of $1,272.60.

24. A factor not directly related, but which tends to reduce the effect of the progressive benefit structure is the probability that A and B will be taxed at lower rates overall when they retire because they will have less income than they did while working.
high a return on their investment. One can think of many situations, however, where a retiree's earnings record does not reflect her income during retirement. Consider C, who had a relatively low earnings record and expects to receive a 6% return on her investment in social security, but who also just received a large inheritance and expects interest income of $25,000 per year. Also consider D, who had a relatively high earnings record and expects to receive only a 3% return on her investment in social security, and in addition has only $6,000 per year in other income. The tax inherent in the different rates of return falls more heavily on D, who has less current income. Perhaps the more common case is one in which the person with a higher earnings record also has higher income during retirement, but there certainly seem to be risks of inequities in basing progressive rates on earnings records, rather than current income.

Given an accretion model and a consumption model tax with equally progressive rates, the consumption model will tax according to each person's total consumed income, regardless of the inherent tax in the social security benefit structure. To the extent that the benefit structure is progressive when based on current income, it will leave it progressive. The accretion model, on the other hand, will provide basis recovery for social security benefits, which will tend to be a greater benefit to the high wage earner with a low rate of return, than to a low wage earner with a high rate of return. The effect will probably be to lower the progressivity of the combined income-benefit tax, but it will also be to ameliorate the inequitable results in cases like the one involving C and D above. For both accretion and consumption models, however, vertical equity would be much easier to guarantee if the benefit structure were proportional rather than progressive, and the tax rates were based entirely on current income, not on a combination of current income and prior earnings rates.

III. THE PARTIALLY TAX-PREPAID MODEL

The partially tax-prepaid model was what the law provided prior to the Social Security Amendments of 1983. It was an odd combination of accretion and consumption concepts. The

taxpayer paid income tax on his or her contribution, which was consistent with the accretion model, but contrary to that model did not pay tax on the employer's contribution, even though it was for the taxpayer's benefit and added to the total investment on the taxpayer's behalf.

The failure of the model to tax employees on employer contributions would make sense given the prevailing assumption that these contributions were passed along to employees in the form of lower wages. The employer contributions would then be analogous to salary-reduction contributions by an employer to an employee retirement plan. Growth on all the contributions was totally deferred, as it would be under a consumption model tax, but benefits were completely tax-free, which was like neither the consumption nor the accretion tax. In effect, the benefits derived from the employer's contributions completely escaped taxation.

At least as to the employee's contributions, however, the system was like an inverted consumption tax, in which the tax was paid up front on the investment, and all income derived from it was tax-free (under the consumption tax the investment is free of tax and the ultimate consumption is taxed). As William Andrews points out, these two methods of taxation are equivalent so long as the tax rates are the same at the times the taxes occur, and adjustments for inflation are made.27

Of course, it is unlikely the tax rates would be the same from generation to generation. One generalization that can be made is that rates over a worker's lifetime are likely to be higher under the tax-prepaid model because the taxes are imposed during the taxpayer's working years, when income is likely to be higher.

Under the tax-prepaid model, because the payroll tax is included in an individual's taxable income, the person who relies primarily on wages for her income fares worse than the person with equal income who does not rely primarily on wages. The horizontal inequities of the payroll tax are passed along through the income tax. In the example of A, B, and C, discussed above, A, the wage earner, would pay income tax on $30,000, even though he has only $28,182 available to pay the tax, because of the assessment of the payroll tax. B would pay

income tax on $30,000, but have $29,091 of available income. C, the retiree, would have a full $30,000 available to pay income tax, and would have a reduced income tax relative to A and B if we assume that a portion of his income consists of social security retirement benefits, because these benefits are not taxed under the tax-prepaid model. So if C's social security retirement pay were $6,000, then C would only be taxed on $24,000, even though he had $30,000 of available income. The combination of the wage earner having to pay tax up-front and the retiree paying no tax on social security benefits widens the gap in current taxation between the wage earner and the retired non-wage earner with equivalent incomes.

This inequality may be seen as a good thing, in that it furthers the good of providing savings to retirees. As efficient as the tax-prepaid model is, however, at providing income to retirees, it is not as efficient as the consumption model, and assesses a greater cost in terms of fairness.

First, the retiree's benefits under the tax-prepaid model are not really tax-free because the retiree would have paid taxes on his contributions (and arguably on part of his employer's as well) throughout his working career. This tax would be equivalent to the consumption model's tax on benefits, but since it is imposed during people's higher earning years it will impose a greater burden than the consumption tax. Under the consumption model, excluding the effects of inflation, social security contributions will always yield a larger after-tax benefit than they would under the tax-prepaid model, so long as the individual's tax rate during retirement will be lower than it was during his working years.

The second problem with the tax-prepaid model is that it ignores what happens to an investment after the point at which the tax is imposed. In Alvin Warren's analysis, the tax-prepaid model necessarily takes an *ex ante* view, and as a result does not treat people fairly with respect to the outcomes of their investments.\footnote{28. Warren, *supra* note 11, at 1100–05.} The consumption model, on the other hand, imposes its tax at the end of the investment, when savings are finally used. It therefore bases its tax on the outcome of the investment, after all contingencies, from windfalls to unexpected losses, have occurred. If, for example, a saver under the tax-prepaid model has $100 and invests $70 and pays a tax of $30,
he will have paid $30 no matter what the investment yields, even if it yields nothing. A saver under the consumption model would have $100 to invest tax-free, and if he loses $70 and consumes $30, he would only be responsible for a tax on $30 (say, $9 at a 30% rate).29

In the context of the social security system, then, “investors” in social security under the tax-prepaid model will have locked in their taxes on their investments long before knowing what their rate of return will be. The system cannot react to fluctuations in rates of return. This is especially unfair in view of the fact that investors in social security don’t really have a choice whether to make the investment in the first place.

The tax-prepaid model offers nothing beneficial in terms of vertical equity. For people under retirement age it carries with it the regressive payroll tax.

IV. THE HYBRID MODEL

Beginning in 1984, social security retirement benefits were for the first time made subject to income tax. The two basic characteristics of the new tax are that: (1) it is imposed on no more than one-half of the benefits received, and (2) it is imposed only if one-half of the benefits received plus other income exceed certain levels ($32,000 for married couples filing jointly, $25,000 for individuals).30 The other characteristics of the tax system are the same as in the tax-prepaid model—employee contributions are included in the income tax base, growth is excluded, and, up to the point where the tax starts, benefits are received tax-free.

The idea behind exposing only one-half of the benefits to taxation was based on the observation that during the individual’s working life, one-half of his contributions were taxed when paid (employee contributions), while the other half were yet to be taxed (employer contributions).

The idea for the current system sprang from the 1979 Advisory Council on Social Security. Some on the Council suggested that taxing one-half of the contributions and one-half of the benefits was not the equivalent of taxing one or the other

29. Professor Warren also contends that the consumption model necessarily takes an ex ante view, but his explanation on this point is not convincing. Id.
fully.\textsuperscript{31} It was pointed out that in the aggregate, contributions of employees then entering covered employment were expected to total no more than 17% of the benefits the system was expected to pay them, and that therefore 83% of benefits should be taxed. The majority of the Council, however, reasoned that since the employees paid half the cost of the contributions they should receive half the benefits tax-free.\textsuperscript{32} This is entirely consistent with the tax-prepaid model, and in fact completes the gap left by the partially tax-prepaid model discussed above.

But because the new system collects taxes up-front on employee contributions, probably at higher rates than would apply if it collected tax just on benefits, it probably is not as efficient as the consumption model would be at building up savings. It also has the rigidity problem that the tax pre-paid model has. In fact, except for the approximately 8% of retirees whose incomes are high enough to pay the new tax, the system is exactly the same as the tax-prepaid model.\textsuperscript{33}

The new law increases the progressivity of the combined income-benefit structure tax for those retirees whose incomes are above the tax threshold levels. Vertical inequities can still exist above these income levels because the benefit structure will continue to reward people with lower earnings records, regardless of these individuals’ total incomes, and because only half of the benefits are subject to tax.\textsuperscript{34} Nevertheless, the tax will have a progressive influence because it will assess larger amounts of taxes against people with larger current incomes.

Horizontal inequities can continue to occur both above and below the tax thresholds under the current system, because of the contribution and benefit structure. In addition, a new kind of horizontal inequity can occur due to the new tax law, between people who are just under and people who are just over the threshold income levels. Professors Pollard and Speer have identified a relatively narrow range of income (equal to a


\textsuperscript{32.} Id.

\textsuperscript{33.} See Chernick & Reschovsky, The Taxation of Social Security, 38 Nat’l Tax J. 141 (1985). This percentage has probably risen since 1985, and will continue to rise, because the income threshold levels are not indexed to inflation.

person's annual social security benefit, from $5,000 to $10,000 for most people), for which tax planning is crucial to tax savings.\textsuperscript{35} Tax planning, of course, is liable to mean more accountants' and lawyers' fees, and more administrative costs. It is difficult to say whether the result of increased progressivity was worth the cost of the legislation, but it does seem that the new system solves few of the inequities of the old system, adds at least one, and has the look more of expedience than reform.

\textbf{Conclusion}

Social security has two very laudable, but sometimes conflicting, goals: To provide a fair return to workers when they reach retirement, based on their earnings-related contributions to the system, and to insure a certain minimum standard of living for all.\textsuperscript{36} The system has maintained the link between earnings and benefits, and at the same time the benefit structure has provided a minimum standard of living to retired low-wage workers, but at some cost to ideas of fairness among individuals with different sources of income, at different income levels, and in different age groups. This brief investigation into some of these inequities has not found a model of taxation that will correct the inequities without the assistance of a change in the contribution and benefit structure itself. The biggest stumbling block to equity is the benefit structure. If the benefit structure were proportional rather than progressive, some of the inequities would vanish regardless of the income tax structure. The consumption model tax, however, appears to rise above the others, even with the burden of the progressive benefit structure, in its ease of income measurement, relative lack of regressivity for people before retirement, ability to accumulate savings faster, flexibility to adapt to changing returns on investments, and ability to avoid creating any horizontal or vertical inequities on its own. There are persuasive arguments in literature for replacing the progressive benefit structure with a decoupled system, with one part providing proportional benefits to retirees based on their contributions, and one part providing an expanded program of income support to low-income people, funded from general


\textsuperscript{36} A. Munnell, \textit{supra} note 8, at 5–8.
revenues. If that day ever comes, it would be good if the consumption model tax were in place.

37. Id. at 40–42.