CHAPTER I

THE TAX ADVANTAGES OF SAVING IN QUALIFIED PLANS AND THEIR EFFECT ON REVENUES

This chapter describes the income tax advantages accorded to retirement plans that qualify for them under the Internal Revenue Code. 1/ It also considers how these tax incentives fit the aims of public policy. Finally, it offers estimates of revenue losses resulting from the tax advantages.

THE TAX ADVANTAGES OF SAVING IN QUALIFIED PLANS

The federal income tax law contains substantial advantages for individuals who participate as employees in qualified employer-sponsored retirement plans and for those who contribute to their own Individual Retirement Accounts (IRAs). The tax advantages are essentially twofold: 2/

- Employers' contributions (and some types of employee deferrals of wages) to a qualified plan are not taxed as compensation to individual employees at the time of deposit; rather, the participants pay tax on them later when payments from the plan are received. So also, many deposits in IRAs are not taxable until distributed in retirement.

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1. In this report, unless pensions, profit-sharing, or stock-bonus plans are specifically distinguished, the phrase "qualified plans" should be read to include all three, as well as such tax-favored saving plans as thrift plans or 401(k), 403(b), and similar salary reduction arrangements. In general, the term "qualified plan" should also be read to include IRAs, although technically they are not qualified plans as such. Unless distinguished, these various terms include provision for disability and preretirement survivor benefits when those benefits are an incidental part of the pension plan. As a result of legislation in 1982, the distinctions between plans for the unincorporated self-employed (Keogh or H.R. 10 plans) and other plans no longer apply after 1984. The paper generally will not distinguish Keogh-type plans from other employer-sponsored plans.

2. Distributions from pensions are additionally tax favored in both income and estate taxation. For example, some lump-sum distributions are allowed income averaging. This paper, however, does not focus on these and similar tax advantages.

- Interest and other investment income earned within qualified plans and IRAs accumulates tax free until the time at which that investment income, along with the original contributions, is received by the participants.

These provisions shift the taxation of income from the time it is originally earned until the time it is withdrawn and used, and they do so in an exceptionally favored way. Consider a person whose tax rate in retirement is the same as it was in his or her working years. The taxes owed at withdrawal equal the taxes he or she would have paid on the original contribution if it had been received as earnings plus interest on that postponed liability from the time of deposit to the time of withdrawal. The individual retains in retirement an amount equal to the after-tax remainder of the original contribution plus all the interest and other investment income earned by that remainder. 3/ In effect, taxes are permanently forgiven on this component of investment income. If also, as often happens in retirement, a person's tax rate at the time of withdrawal is lower than it was at the time of deposit, then he or she retains a larger after-tax remainder and associated tax-free investment income on that remainder. 4/

Another way of expressing the combined effect of the advantages is that a person can transfer consumption from working years to retirement years at a rate equal to the before-tax interest rate, rather than the

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3. This result can be seen by examining the value of a qualified plan distribution funded with before-tax contributions after it has been taxed in retirement. That after-tax value in retirement, Q, is:

$$Q = (1\text{-}t)\,W\,(1+r)^n$$

where t is the beneficiary's tax rate, W equals forgone wages deposited into the qualified plan in the working years, r is the interest rate, and n is the number of years over which the original deposit earns interest or some other type of investment income. This after-tax distribution, Q, is equivalent to taxing the original deposit and then allowing the after-tax amount to accumulate at a market rate of return with no further taxation.

4. The added gain from a lower tax rate at withdrawal can be seen in the preceding footnote by ascribing a lower tax rate to the value t in the formula. For example, if a taxpayer's tax rate in retirement is 15 percent, he or she gains more than if the contribution had been taxed at the 28 percent tax rate that the taxpayer may have encountered while working.

The added gain from effectively taxing the contribution at a lower retirement tax rate is considered by some observers an appropriate provision for lifetime income averaging in a tax system with a progressive rate structure, rather than as a preference.

after-tax rate. This exceptional treatment of qualified plan savings in the current income tax code is how all savings would be handled under an expenditure or consumption tax.

When the first advantage is forgone and only the second advantage is allowed--that is, when contributions to a qualified plan or an IRA are taxable but the tax on interest is deferred until withdrawal--the gain remains significant, but it is not as substantial or exceptional. 5/ Taxes on investment income earned by after-tax contributions to a qualified plan and to a nondeductible IRA are only deferred, not forgiven.

Table 1 illustrates the potential value of the tax advantages associated with saving in a qualified plan, especially as compared with saving in a regular savings account. A regular savings account is funded with deposits that come from after-tax income and accumulate only at an annual after-tax interest rate--that is, the interest or investment income earned in such an account is taxed annually. 6/ The table assumes that a person age 45 has $1,000 in wages and wishes to save it for 15 years for purposes of retirement at age 60. The market interest rate during the full 15 years is assumed to be 8 percent.

The first example in the table applies to a taxpayer who is in the 15 percent bracket when working and when retired. In a regular savings account, the taxpayer can deposit $850 after tax, which will compound at an effective (after-tax) interest rate of 6.80 percent and will yield $2,280 at

5. Other investment instruments receive similar deferred income tax treatment--notably, capital gains, whole life insurance policies, and individual deferred annuity contracts. This value can be seen by examining a distribution from a qualified plan funded with after-tax employee contributions. In this instance, the deposit into the qualified plan account equals (1-T)W, where T is the tax rate in the working years and W equals the amount of wages devoted to after-tax savings. This amount accumulates to the value $(1-T)\ W\ (1+r)^n$ before distribution and taxation in retirement at the rate t. At that time, a taxpayer is allowed to recover tax-free only that amount equal to his original after-tax deposit. Thus, the result after taxation in retirement is

$$G = (1-t)\,(1-T)\,W\,[(1+r)^n - 1].$$

6. The withdrawal from a regular savings account can be expressed as:

$$R = (1-T)\,W\,[1+(1-T)r]^n$$

where terms are as defined in the preceding footnotes.

TABLE 1. TAX ADVANTAGES OF A $1,000 CONTRIBUTION TO A QUALIFIED RETIREMENT PLAN

	Example 1: Tax Rate of 0.15 in Working Years			Example 2: Tax Rate of 0.28 in Working Years		
	Regular Account a/	Thrift Plan b/	401(k) Plan c/	Regular Account a/	Thrift Plan b/	401(k) Plan c/
Contribution	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Tax on Contribution	150	150	0	280	280	0
Deposit d/	850	850	1,000	720	720	1,000
Value at Withdrawal	2,280	2,696	3,172	1,668	2,284	3,172
Retirement Tax Rate	--	**0.15**	**0.15**	--	**0.28**	**0.28**
Tax on Withdrawal	0	277	476	0	438	888
Net Withdrawal	2,280	2,419	2,696	1,668	1,846	2,284
Gain Over Regular Account	--	139	416	--	178	616
Percent Gain	--	6	18	--	11	37
Alternative Retirement Tax Rate	--	**0**	**0**	--	**0.15**	**0.15**
Tax on Withdrawal	0	0	0	0	235	476
Net Withdrawal	2,280	2,696	3,172	1,668	2,049	2,696
Gain Over Regular Account	--	416	892	--	381	1,028
Percent Gain	--	18	39	--	23	62

SOURCE: Congressional Budget Office.

a. A regular savings account is funded from after-tax income, with interest or investment income taxed annually.

b. Thrift plans are funded from after-tax income, with investment income taxed at the time of withdrawal.

c. A 401(k) plan is funded from before-tax income, with the full account taxed at the time of withdrawal.

d. Deposited for 15 years at 8 percent interest.

age 60. 7/ If, instead, the taxpayer diverts $1,000 of wages into a qualified salary reduction ("401(k)") arrangement or, equivalently, a deductible IRA, 8/ that full amount will compound at a market (before-tax) interest rate of 8 percent for 15 years and, after taxation at age 60, will yield $2,696. The taxpayer gains $416 in after-tax retirement income, an 18 percent increase over what could be achieved in a regular savings account.

The gain from saving in a qualified plan is even greater for a person facing a higher tax rate. The second example shows a person paying the 28 percent tax rate both when working and retired. For this taxpayer, only $720 remains after taxes for deposit into a regular savings account. That amount will compound at an after-tax interest rate of 5.76 percent, yielding $1,668 at age 60. If, instead, $1,000 of wages goes into a 401(k) arrangement to compound at 8 percent, the after-tax withdrawal is $2,284. In this case, the $616 gain in after-tax income represents a 37 percent increase over the result from a regular savings account.

The gain in retirement income increases further for a person whose tax rate declines in retirement. For example, if the tax rate in the second example declines to 15 percent at retirement, the after-tax distribution from the 401(k) arrangement rises to $2,696. The $1,028 gain is 62 percent more than the amount yielded by a regular savings account. 9/

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7. The after-tax interest rate is calculated as $(1-T)r$ where r is the interest rate paid on the deposit and T is the marginal tax rate on the interest. When the market rate is 8 percent and the tax rate is 0.15, the after-tax rate is 6.80.

8. A 401(k) plan is one form of a qualified salary reduction arrangement. All salary reduction arrangements allow employees to reduce their salaries by a chosen amount and have that amount placed in a qualified plan. The most common salary reduction arrangements are 401(k) plans in the for-profit sector and 403(b) tax-sheltered annuities in the nonprofit sector. See Chapter II for further discussion.

9. The calculations in this section are extended in Chapter III to plausible lifetime patterns of contributions for a cross-section of the U.S. population. The results there provide a more realistic estimate of the potential retirement income gain from the tax advantages.

   The potential size of the tax advantage is illustrated in this section by assuming that the employee allocates the same amount of earnings ($1,000) to retirement saving in a qualified account as he or she would to a regular savings account. In reality, people could allocate more or less to saving when it is in a qualified plan than when it is not. If more was allocated, working-year consumption would be reduced and the change in retirement income would be greater than in the examples. If less was saved, employees would be using some of the tax advantage to raise consumption before retirement. Likely responses to qualified saving are examined in Chapter IV.

The retirement income gains in these examples equal those that would occur if the contribution to the 401(k) arrangement were taxed at the time contributed and then the after-tax remainder were allowed to earn interest tax free. Thus, the gain of $1,028 in the last example is the same as would occur if the $1,000 of wages contributed to the 401(k) arrangement had been taxed at the 15 percent retirement tax rate, leaving $850 in the account, and then had earned 8 percent interest tax free for 15 years. In the earlier examples, where the individual's tax rates in retirement and in the working years are equal, the results are the same as if the after-tax deposits in the regular savings account had earned an 8 percent tax-free rate of return instead of their respective after-tax rates of return.

Most people will be covered by the tax rates in one of the above examples once the Tax Reform Act of 1986 is fully implemented. According to the projections in Table 2, about 80 percent of pension recipients and workers will pay either the 15 percent or 28 percent tax rate. The main exceptions are the 19 percent of workers and 11 percent of pension recipients with incomes too low to pay any income tax. 10/ Workers who do not pay income taxes derive no gains from the income tax advantages of qualified plans; they also are less likely to be participants in qualified plans. Pension recipients not paying any taxes in retirement nonetheless have gained from their qualified plans if they typically paid taxes in their working years. Table 1 includes an example of such an individual, assuming that he or she paid a 15 percent rate while working. How many taxpayers will pay lower rates in their retirement years compared with their working years cannot be determined, but the wider brackets in the new law suggest that fewer will do so than previously.

The Tax Reform Act of 1986 will greatly reduce the advantage of saving in qualified plans for people paying the highest tax rates. Consider someone who under prior law paid a 50 percent tax rate while working and in retirement. Under the assumptions used in Table 1, $1,000 of savings in a 401(k) arrangement yields $1,586 in retirement, compared with only $900 in an ordinary savings account, for a retirement income gain of $686 or 76 percent. Assuming that after 1988 the same person is in the 28 percent tax bracket before and after retirement, the net gain will drop to $616 or just 37 percent. In contrast, tax reform will have a much smaller effect on the average taxpayer. Tax reform is projected to reduce the average marginal tax rate from 27 percent to 22 percent, which in the above examples

10. Because pension recipients have relatively high incomes in retirement--compared not only to retirees without pensions, but also to all workers--fewer of them pay no income taxes than is the case among workers.

reduces the gain from 35 percent to 28 percent. The effects of tax reform on people paying high and average rates are contrasted in Figure 1.

As noted, after-tax contributions to qualified plans and nondeductible IRAs are less advantaged. If, for example, an after-tax amount of $850 is deposited in a qualified thrift plan, $2,419 will remain after the investment income component is taxed at the time of withdrawal, assuming a 15 percent tax rate in retirement. This is a gain of 6 percent over a regular savings account compared with the 18 percent gain of a 401(k) plan. If an after-tax amount of $720 is deposited in the thrift plan, $1,846 or $2,049 will remain after the investment income component is taxed at the time of withdrawal, depending on whether the taxpayer is in the 28 percent or the 15 percent tax bracket, respectively, in retirement. In the higher retirement tax bracket, the thrift withdrawal is 11 percent above that in a regular savings account compared with a 37 percent gain in a 401(k) plan; in the lower retirement tax bracket, the thrift's gain is 23 percent compared with 62 percent in a 401(k) plan. (Table 1 summarizes these examples under the heading "thrift plan.")

TABLE 2. PROJECTED TAX RATES ON WORKERS AND PENSIONERS IN 1988 UNDER THE TAX REFORM ACT OF 1986

Tax Rate Brackets a/		Percentage Distribution of Taxpayers: With Wages	With Pensions
	0	18.5	10.9
	15	55.4	59.4
Lower	28	23.1	24.5
	33	2.5	4.3
Upper	28	0.4	0.7
Minimum Tax		0.2	0.1

SOURCE: Congressional Budget Office tabulations.

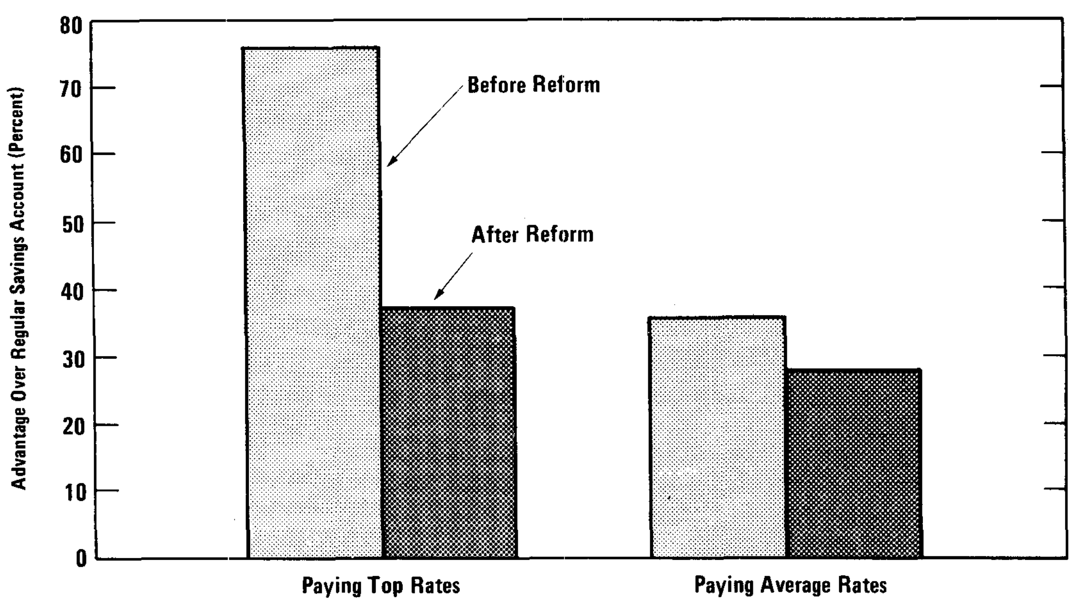
a. A 5 percent surtax is added to the 28 percent basic tax rate for adjusted gross incomes within specified ranges. This raises the combined tax rate to 33 percent for this interval. The surtax and specified ranges are set to recapture the advantage of the 15 percent rate and the personal exemption from taxpayers with incomes above the specified ranges. For married couples filing joint returns and claiming four exemptions in 1988, the recapture range is $71,900 to $192,930 of adjusted gross income. See footnote 8 in Chapter V for more details about the 1988 tax structure.

The 401(k) examples equally apply to employer contributions to qualified plans. To provide retirement income to employees without tax advantages, the employer would have either to pay the $1,000 as wages to the employee, who would place it in a regular savings account, or to save it for the employee in a taxable account as a (nonqualified) deferred compensation plan. As compared with the first alternative (the contribution being paid as wages and saved in a regular savings account), the advantages for an employer contribution to a qualified plan are exactly the same as those shown in the 401(k) examples. In the second alternative, where the contribution would be saved by the firm to fund a nonqualified deferred compensation promise to the employee, an additional difference is that the contribution and subsequent years' investment income would be taxed at the firm's corporate rate instead of the employee's personal rate.

One important difference exists, however, between employer contributions to qualified plans and wages deposited in a 401(k) or other salary reduction arrangement. Employer contributions to qualified plans are not subject to the Social Security payroll tax, but wages used for salary reduc-

Figure 1.

Effects of the Tax Reform Act of 1986 on the Tax Advantages of People in Qualified Retirement Plans Who Pay Top Income Tax Rates and of Those Who Pay Average Rates



tion deposits (or placed into IRAs) are taxable under Social Security and eventually enter into benefit calculations in that program.

PUBLIC PURPOSES OF TAX ADVANTAGES FOR QUALIFIED PLANS

The favorable tax treatment enjoyed by qualified plans is a way of achieving several ends of social policy.

Higher Retirement Incomes

Qualified plans, it is often said, are a complement to Social Security in helping workers achieve socially desired levels of retirement income. As a compulsory retirement system, Social Security helps most workers to retire at reasonable standards of living. The tax advantages associated with qualified plans further assist some workers in achieving that objective in several ways. Most directly, the tax advantages raise the return on a given amount of retirement savings, as shown in the examples outlined earlier. Second, because coverage of most of an employer's workers in a qualified plan is a condition of qualification, such plans may increase the retirement income for some workers who otherwise would not have made provision on their own. 11/ Finally, under some circumstances, the higher return on qualified savings plans may induce some workers to save more for retirement than they would have otherwise, thus further increasing retirement incomes. This point is discussed more fully below.

Social Security favors lower-income workers, who receive benefits that are relatively high in proportion to their earnings. In contrast to Social Security, the tax advantages enjoyed by qualified plans accrue primarily to middle- and higher-income people. One can argue that without these tax advantages, upper- and middle-income workers might be less inclined to support the redistributional formula in Social Security than they are now. By the same token, without the redistribution formula in Social Security, there might be pressure to regulate qualified plans even more than now in order to achieve larger benefits for those at the lower end of the income distribution.

11. As discussed in Chapter IV, such increases in retirement income probably represent both some forced saving by those who would not otherwise have saved and a diversion of the tax advantages from higher-income to lower-income workers.

Many argue, however, that middle- and especially higher-income people do not need the tax advantages of qualified plans since they would have sufficient retirement income without them. Furthermore, many qualified plans as they are now constituted favor long-service workers as against those who change jobs or whose employers never sponsor plans or terminate their plans. These coverage and job tenure disparities in qualified plans exist at all income levels, but are greatest in the lower portions of the income distribution. Chapter III presents quantitative evidence bearing on this issue.

More Incentive to Save

Because an income tax, by definition, taxes interest and other investment income, it does not allow people to set aside money that will earn interest at full market rates. An income tax also means that an extra hour of work in the present cannot be translated into an equivalent value of leisure in the future. Many argue, therefore, that an unmodified income tax distorts people's choices in favor of immediate consumption and less savings, and that it results in longer working lives. This pattern of consumption and saving, it is argued, is less than optimal for individuals and deprives the nation of needed savings for investment by business. In its most general form, this is an argument to exempt all savings from current income taxation. 12/

In a more limited context, it is asserted that saving for retirement is so important both to individuals and to society that the income tax must have exceptions, such as those that now exist, to its normal rules--for that purpose, if no other. For some people, especially at lower income levels, retirement may seem a long way off, the necessary savings difficult to

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12. An additional argument for a full-scale consumption tax is normative. Some proponents of this view argue that, regardless of the actual effects on behavior of one type of tax system or the other, the government simply should not place penalties on the attempts by workers to arrange their lifetime consumption and work patterns as they see fit.

    Further discussion of consumption and income taxes can be found in Department of the Treasury, *Blueprints for Basic Tax Reform*(January 17, 1977); Institute for Fiscal Studies, *The Structure and Reform of Direct Taxation*, Report of Committee Chaired by Professor J.E. Meade (London: Allen and Unwin, 1978); Congressional Budget Office, *Revising the Individual Income Tax*(July 1983), pp. 109-130, and in references cited therein.

calculate, and current needs more pressing. These considerations argue for policies that encourage, even force, people to save more for retirement. 13/

On the other hand, the tax advantages in qualified retirement plans narrow the federal government's tax base. To raise necessary revenues, the government may have to tax other income at higher rates. This course of action would be especially disadvantageous to taxpayers not participating in qualified plans and not saving in IRAs.

Chapter IV analyzes the problem of incentives at greater length, showing how the tax advantages both encourage and discourage increased saving, the extent to which forced saving may occur, and how the costs of pension saving may be allocated among fellow employees.

Simplicity in Tax Administration

Another argument for the current tax treatment of qualified plans stems from the complexity of trying to assign pension fund contributions and investment earnings annually to individual taxpayers for purposes of taxation. The benefits a person will receive from a qualified plan often are unclear until they are paid out. Some employees leave before vesting, and hence lose the employer's contribution; others leave before they have built up substantial value in their pensions; and others die before claiming any benefit. Further, it is difficult to tax workers on income they do not receive as cash in hand and, therefore, cannot use to pay the tax. By contrast, taxing the benefits is simple. The recipients and their benefits can be clearly identified, and taxes are paid only as benefits are received. Because this treatment is also very favorable, a whole complex of laws and regulations has evolved to prevent its abuse.

Simplicity might arguably be achieved without conferring such large tax advantages. Contributions to pension trusts or plan accounts could be taxed at a uniform rate at the time of deposit--either at the tax rate of the contributing employer or individual, or at a tax rate that approximates the marginal tax rates of all the workers benefiting under the plan. The invest-

13. By themselves, the tax advantages afforded qualified plans might encourage some workers to save more voluntarily for their retirement and to work more in their prime working years than they might otherwise. Under current law, however, these tax advantages primarily are available only through participation in employer-sponsored pensions. Because of the uniform and collective nature of such plans, some individuals may be forced to save more than they would voluntarily and some of the costs associated with retirement savings may be redistributed from higher-income to lower-income workers. Chapter IV discusses this further.

ment income of the trusts and accounts could also be taxed at a uniform rate, such as the employer's rate, a blended rate attributable to the workers, or the rates normally applicable to taxable trusts. Distributions would become nontaxable. 14/ A major drawback to these hypothetical treatments is that at any of these rates some, and probably most, workers would be taxed at a higher rate than on their other compensation and investment income. (A few higher-income workers would likely be taxed at a lower rate.) A partial movement in this direction might be feasible, however, if the investment earnings of pension trusts and plan accounts were taxed annually at a uniform special rate that was relatively low. This approach would continue taxation of contributions at each participant's tax rate in retirement, but would tax the investment earnings at a more uniform rate. Chapter VI considers this option in greater detail.

EFFECTS OF TAX ADVANTAGES ON REVENUES

The increases in retirement income accruing from qualified plans (plus increases, if any, in retirement savings) are not without their costs. By definition, such increases in retirement income are also reductions in revenue that might have been used for other purposes--for example, to lower tax rates, increase Social Security benefits, expand defense or foreign aid programs, or reduce the federal deficit. In this section, the revenue effects are examined in terms of the lifetime revenue losses associated with an individual plan participant, and the annual cash-flow loss to the federal budget.

Lifetime Revenue Losses

Losses in revenues occur during a taxpayer's working years as contributions are made to qualified plans and as the plans earn investment income. These losses, however, are partially offset from taxes paid after retirement as distributions are made and taxed. The present value of taxes paid in

14. An alternative method of taxation would be to use actuarial calculations to measure the value of annual benefits accruing to each employee participating in a plan. The calculated amounts would then be included on W-2 forms along with taxable wages. The calculations could include appropriate discounts for the probability of vesting, leaving, or dying before receiving benefits. Drawbacks to this method are that these calculations would not be clear to many employees, and that the employees would be paying tax on income that they cannot control.

retirement averages between 30 percent and 60 percent of the taxes tha would have been paid in the working years. 15/

Annual Revenue Loss

From the standpoint of the federal budgeting process, the annual revenue loss is more relevant than the net lifetime loss. The federal budget uses cash accounting, which includes only current year tax revenues. Consequently, the annual revenue loss, ignoring future tax liabilities, is used for qualified plans and IRAs in federal budgeting. Annual loss is calculated by both the Treasury Department and the Joint Committee on Taxation (JCT) in making up their annual lists of tax expenditures. These measures are computed first by adding the taxes forgone on current year contributions (as if they had instead been paid as wages) to the taxes forgone on interest or other investment income earned by qualified pension trusts or in other qualified accounts. From this sum one subtracts the taxes paid on pension annuities and on lump-sum disbursements from qualified accounts. The JCT projects the tax expenditure for pensions and other employer plans in 1988 to be $49.3 billion, with another $8.5 billion from IRAs (see Table 3). 16/ By this measure, the tax expenditures for qualified plans and IRAs constitute the largest exception to the individual income tax.

15. Examples constructed at CBO, which use a variety of funding rates and contribution periods, find that the present value of taxes repaid ranges between 30 percent and 50 percent for typical cases. A simulation study that calculated the payback found 60 percent repaid in present value. See Sophie M. Korczyk, *Retirement Incomes and Tax Policy* (Washington, D.C.: Employee Benefits Research Institute), pp. 56-57.

16. The current tax expenditure estimates may overestimate the revenue loss because they assume that all of the asset income of qualified plans would become taxable in the absence of the current tax advantages. The amount of taxable asset income would likely be less, for several reasons. First, income no longer going to qualified plans would be taxable, so deposits from after-tax incomes would probably be smaller than those in qualified plans. Second, because those deposits would be taxable, they would accumulate more slowly and therefore earn less and less income in succeeding years. Finally, some of the contibutions diverted from qualified plans would go into other tax-favored investments, such as deferred annuities and homes, whose yield is not taxed annually.

The Tax Reform Act of 1986 reduced the annual loss from qualified plans and IRAs. According to JCT estimates before and after tax reform, the legislation reduced the revenue loss from employer plans by $17.6 billion. Only about $4 billion of this reduction is attributable to provisions restricting qualified plans, primarily the limit on elective deferrals in salary reduction agreements and repeal of the three-year recovery rule for after-tax employee contributions. The remaining reduction in the revenue loss from qualified plans simply reflects the act's reduction in tax rates. Lower tax rates mean that less revenue is lost from any untaxed income. Tax reform also reduced the revenue loss from IRAs by $9.2 billion. Over $5 billion of this is the result of restricted eligibility for IRA contributions; the remainder results from lower tax rates.

The annual revenue loss from qualified plans and IRAs will resume its long-term upward trend after the step down caused by tax reform. The projections of the Joint Committee on Taxation in Table 3 show the trend to be upward over at least the next five years. In the longer run, the trend will be governed by the number of participating employees relative to the number of retirees, by the rate of real growth in incomes, and by the prevalence of qualified plans. Because large population cohorts born between 1946 and 1962 (the so-called baby boom generation) are now in their working years, many more taxpayers are contributing to, and accruing investment earnings in, qualified plans than are receiving distributions from them. Until they retire in the next century, then, the sources of revenue loss will outweigh those of revenue gain. As they retire, however, the elderly population will grow relative to the working population, and this

TABLE 3. PROJECTION OF REVENUE LOSSES FROM QUALIFIED PLANS (In billions of dollars)

	1988	1989	1990	1991	1992
Employer Plans	49.3	51.7	56.5	61.8	67.5
IRAs	8.5	8.4	8.9	9.3	10.3

SOURCE: U.S. Congress, Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 1988-1992* (JCS-3-87), February 27, 1987.

shift will tend to reduce the size of the annual revenue loss from qualified retirement plans.

The annual revenue loss also depends on the amount of contributions and investment earnings per worker compared to the benefits per retiree. Because real income growth raises current contributions relative to current benefits (the benefits being based on past wages), it tends to keep the net revenue losses from qualified plans on an upward slope. Any liberalization in plan accrual rates or contribution limits would have the same effect.