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The Taxation of Private Pensions

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III
Instruments of Pension Policy

Chapter 7
The Taxation of Private Pensions

Andrew Dilnot

As governments throughout the developed world faced up to growing pressure on public finances in the 1980s and 1990s, one natural question has been whether more tax could be raised from the pension sector. Alongside the desire to raise more revenue, there have been some tax reformers who have called for a broader tax base and lower tax rates, while others have argued for special tax privileges in an attempt to boost saving. Contributions to private pensions represent a major part of private sector savings flows, and thus their taxation must fit sensibly with the taxation of other forms of saving. Where private pensions are based on funds, as is typically true within the Organization for Economic Cooperation and Development (OECD), the pension funds are of enormous importance as suppliers of capital to industry; any taxation must aim to avoid distorting the capital market. And, finally, private pensions are an important and growing source of retirement income. The taxation of pension benefits should aim to distort choices as little as possible for the retired, and in particular should not necessarily distort the decision as to the mix of benefits to be taken between lump sum and pension. All these are complex issues; the aim of this chapter is to attempt to highlight areas where discussion and debate are needed rather than to define answers.

We begin by examining the range of possible tax regimes in which private pensions might operate. Next we describe the tax systems for private pensions in a number of countries, and consider alternative aims for a tax system as it affects retirement saving. Possible routes to raising additional revenue from private pensions for those countries at present giving substantial relief are evaluated along with the debate over tax expenditures.

Taxing the Provision of Private Pensions

Three main transactions constitute most private pension plans, and it is these transactions that are the possible occasions for taxation:

- Contributions into the scheme, from employer or employee
- Income derived from the investment of contributions
- Payment of retirement benefits from the accumulated fund.

As we discuss in the following section, there are examples within the OECD of regimes that tax pensions at almost every conceivable combination of these points. However, certain possible combinations are more common than others, and certain combinations characterize alternative ideals for the tax system.

Table 1 illustrates four possible tax regimes, describing them in terms of whether tax is imposed at each of the three possible points. Thus the EET regime is exempt taxed. We assume for these examples that there is a single income tax rate of 25 percent, that the rate of return that can be earned on investment is 10 percent, and that we are considering a single contribution derived from earned income of 100, five years before retirement.

Regime A: Tax Free Contributions and Fund Income, Taxed Benefits (EET)

This regime allows deductibility of pension contributions from taxable income, allowing the whole 100 of earnings into the pension fund. No tax is charged on the investment income of the fund, but tax is charged in full on withdrawal. This type of tax treatment confers a post-tax rate of return on saving equal to the pre-tax rate of return. Faced with this regime an individual earning 100 can either choose to spend now, paying 25 of tax and consuming goods worth 75, or save now and consume goods worth 120.79 in five years. The figure 120.79 is simply $75 \times (1.1)^5$. It is easy to think of this regime as being a way of deferring pay until retirement, and simultaneously deferring the payment of tax on that pay until retirement.

Regime B: Taxed Contributions, Tax Free Fund Income and Benefits (TEE)

This regime does not allow deductibility of contributions, thus reducing the initial size of the fund from 100 to 75. As for Regime A, investment income is free of tax. Withdrawal of retirement benefits attracts no tax. As for Regime A, this type of tax treatment preserves the equality of pre- and

TABLE 1 Alternative Tax Regimes

Characteristic	*A (EET)*	*B (TEE)*	*C (TTE)*	*D (ETT)*
Earnings	100	100	100	100
Taxes Paid	—	25	25	—
Pension Fund	100	75	75	100
Net Income Over Five Years	61.05	45.79	32.67	43.56
Fund at Retirement	161.05	120.79	107.67	143.56
Tax on Withdrawal	40.26	—	—	35.89
Benefit Withdrawn	120.79	—	120.79	107.67

Source: Author's simulation.

post-tax rates of return. In the case of Regime B it is easy to see the non-taxation of investment income that ensures this.

Regime C: Taxed Contributions, Taxed Fund Income, Tax-Free Benefits (TTE)

This regime is basically that applied to interest-bearing short-term saving in most OECD countries. There is no tax deductibility of contributions, investment income is taxed in full, and there is no tax on withdrawal of benefits, since there is no untaxed investment income. Unlike Regimes A and B, this tax treatment brings the post-tax rate of return below the pre-tax rate of return. Here, the post-tax rate of return is 7.5 percent [$107.67 = 75 \times (1.075)^5$].

Regime D: Tax Free Contributions, Taxed Fund Income, Taxed Benefits (ETT)

This regime produces the same outcome as C, and therefore the same post-tax rate of return. Taxation of benefits and exemption of contributions is substituted for taxation of contributions and exemption of benefits.

Other combinations of taxing and relieving at each of the three points are possible, and indeed exist. There are no regimes within the OECD less favorable than C, but many more favorable than A or B.

If taxing pensions were as simple as implied by the above examples, much of the complexity of both legislation and of the pensions industry itself would be unnecessary. We discuss below some of the problems associated with attempting to increase revenue in this area that are related to the complexity of pension regimes in practice. We have, for example, assumed that contributions can be identified. Non-contributory employer-funded schemes make this quite difficult. We have assumed that funds exist, although there are many examples of unfunded schemes

and, in some countries, of effectively pay-as-you-go schemes. We have also ignored the problems of identifying investment income, in particular where the income is in the form of unrealized capital gains, and of allocating investment income to individuals in a fund held on behalf of individuals with varying marginal tax rates.

Finally, and perhaps most important, we have ignored inflation. For Regimes A and B, which do not tax investment income, inflation causes no problem; for Regimes C and D, where investment income is taxed, difficulties arise. If investment income is taxed ignoring inflation, the post-tax real return will fall still further below the pre-tax real return. Imagine that in our earlier examples 7.5 percent of the 10 percent interest rate simply reflects inflation. To maintain the real value of savings a 7.5 percent post-tax rate of return is required. The outcome of Regimes C and D was 107.67, which is precisely $75 \times (1.075)^5$. So Regimes C and D, if they ignore inflation, would in this case remove the whole of the real return. If the balance between inflation and real returns were to shift further towards inflation, Regimes C and D would confer a negative post-tax rate of return. Regimes A and B retain their characteristic of real pre- and post-tax real rates of return whatever the mix of inflation and real return in the nominal return. In the case of 7.5 percent inflation the real return in Regimes A and B is 2.32 percent per year, equal to the pre-tax real return ($1.075 \times 1.0232 = 1.10$). Regimes of type A and B correspond to an expenditure tax-type treatment, while Regimes C and D correspond to a comprehensive income tax type treatment.[1] These brief descriptions of possible tax regimes should provide some benchmarks against which to assess the actual regimes summarized in the next section, and to provide a basis for our discussion of the criteria for a "good" tax system for private pensions.

Taxing Pensions

Our discussion thus far has outlined a range of possible regimes for taxing private pensions. In this section we describe briefly some actual regimes, and attempt to relate them to the hypothetical regimes just presented. Table 2 is inevitably a simplification.

Almost all the countries shown impose upper limits on the level of contribution and/or benefits that can be paid, although typically these limits affect only a small proportion of the workforce. Many countries treat lump sum payments out of pension funds more generally for tax purposes than they do regular payments: Australia, Ireland, Japan, and the United Kingdom fall into this category. Some other countries such as Canada and France take quite the opposite route, disallowing lump sum payments out of tax-privileged pension regimes, while the remainder

TABLE 2 Taxation of Private Pensions

Country	*Contributions*	*Fund Income*	*Benefits*	*Regime*
Australia	Employer deduct Employee partially deduct	tax at 15%	partially taxed	?
Canada	Deduct	exempt	taxable	EET
France	Deduct	n/a	taxable	EET?
Germany	Employer deduct Employee taxed	exempt	taxable	EET?
Ireland	Deduct	exempt	taxable	EET
Japan	Employer deduct Employee rare	low tax rate	taxable	?
New Zealand	Taxable	taxable	exempt	TTE
Denmark	Deduct	taxed on real returns	taxed	ETT?
Greece	Deduct	exempt	taxed	EET?
Netherlands	Deduct	exempt	taxed	EET
Portugal	Employer deduct Employee limited deductibility	exempt	taxed	EET?
Sweden	Deduct	tax at 10 to 15%	taxed	ETT?
United Kingdom	Deduct	exempt	taxable	EET
United States	Employer deduct Employee taxable	exempt	taxable	EET

Source: Author's compilation.

subject lump sums to tax in broadly the same way as regular payments. It is clear from Table 2 that the bulk of countries still operate systems most like the EET regime referred to above, which itself corresponds quite closely to the expenditure tax, and can also be thought of as a system of deferred pay. These apparently quite generous schemes have typically operated over quite lengthy periods.

It is worth noting that two countries that have recently reformed their taxation of pensions, Australia and New Zealand, have both moved toward less generous systems, at least partly with the aim of raising extra revenue but also with the aim of improving the efficiency and equity of the tax system as a whole. New Zealand has taken perhaps the boldest steps, making all contributions taxable, taxing all fund income (with no allowance for inflation), and then leaving all pensions untaxed. As argued at the time in New Zealand, this puts pension saving on the same basis as saving in an ordinary interest-bearing account.

The reforms in Australia moved in a similar direction, but have produced a substantially more complex system. Employer contributions continue to be deductible. Employee contributions are partially deductible

up to certain limits contingent on employer support being below a given level, and all concessions are phased out beyond roughly average earnings. These limits discourage employers from increasing their contributions beyond the level at which employees lose their rights to deductibility and create a number of other distortions. Contributions that have been deductible are subject to a 15 percent withholding tax. Investment income of the fund is taxed at 15 percent, as are capital gains, but capital gains are taxed after adjustment for inflation, thus making capital gains far more attractive than income from the point of view of the funds. Lump sum benefits are taxed at 15 percent beyond a threshold, and pension benefits are taxed at the individual's marginal rate less 15 percent.

Two other regimes deserve special mention since they do not fit into the framework outlined above — those of France and Germany. Occupational pensions are provided in France through a pay-as-you-go system known as "repartition." Employers make contributions to a collective pension plan; these earn a certain number of points for the employee on whose behalf they are made. At retirement the worker concerned will have a points score to his or her credit that determines the pension to be received. The value of a pension point is reviewed annually and moves in line with earnings. The cost of a pension point is set by the annual outflow from the fund. Thus there is no funding of future liabilities, and hence no pension fund assets or liabilities of great significance. Contributions made by employers on this basis are deductible against corporation tax paid by employers, and employee contributions can be deducted from taxable income. Pensions are taxable as ordinary income, although subject to some special concessions.

The normal method of private pension finance in Germany is through the use of "book reserve" accounting. There is no special fund; prospective pension liabilities are charged each year against the company's profit and loss account and balance sheet. Charges computed in accordance with bases agreed on by the tax authorities can be deducted in assessing corporation tax liabilities. Scheme members rank with other creditors in the event of insolvency of the parent company; hence legislation requires that vested benefits and pensions in payment should be insured. Premiums for such insurance are in turn tax-deductible. There is no charge to employees until pensions are paid. Pensions are then taxed as other income, subject to a lower rate of tax on small incomes. If a German employer does establish a segregated fund, the employee will be liable for tax on contributions made on his or her behalf. Such funds are correspondingly rare.

Although the French and German institutional arrangements are rather different from those in most countries, they fit into the group of countries including Canada, Ireland, the United Kingdom, and the

United States for which the only significant source of tax revenue from pensions is the taxation of pensions in payment. The United States does deny relief to employee contributions to defined benefit plans, but the consequence is that there are few employee contributions.

Despite their long histories, and widely varying institutions, the taxation arrangements for private pensions in the OECD have much in common. Yet there are many calls for reform, and some countries have already implemented quite dramatic change. In the following section we consider the possible objectives for a pensions tax regime, and the feasibility of achieving them.

Objectives for the Tax System

Many considerations seem to lie behind attempts to review the tax treatment of savings in general, and private pensions in particular. One is the concern for fiscal neutrality, the desire to achieve a tax structure that as far as possible avoids discrimination between different kinds of activity and that leaves choices unaffected by tax considerations. A second is a desire to raise revenue by eliminating subsidies to particular activities that take the form of favorable tax treatment rather than explicit items of public expenditure. A third is concern about the aggregate level of saving. And in developing and transitional economies, questions are often raised about the most appropriate form of savings taxation.

There is no feasible tax regime that both raises revenue and is fiscally neutral in all aspects. Taxes inevitably distort economic behavior; so the best we can do is remove unnecessary deviations from neutrality and choose those that are least damaging in their overall economic effect. Two kinds of incentive are particularly important in considering the tax treatment of pension funds. One is the incentive to save rather than consume. The second is the choice of the form in which to save. We consider each kind of incentive in turn. There are two ways of interpreting fiscal neutrality in relation to the decision to save. We might seek to be neutral between consumption and savings, or we might seek to be neutral between present and future consumption. Neutrality between consumption and savings is achieved by a comprehensive income tax on real income of all types. Whatever the source of revenue, whether it be from work or from savings, and whether it is consumed or saved, it is taxed in the same way and at the same rate. This approach appears to be gathering support, as evidenced by the reforms in Australia and New Zealand, and by debates throughout the OECD. However, it is worth noting that there are peculiarities associated with this approach. With a comprehensive income tax (TTE in our earlier discussion), savings are treated as if they are simply another commodity, akin to consumption.

But people do not, in the main, save for saving's own sake; savings are not a commodity in themselves, but a means to future consumption. In relation to retirement savings, this perspective is particularly obviously the appropriate one. The relevant concept of neutrality is not between consumption and savings but between consumption now and consumption in the future.

It is this neutrality in the impact of the tax system on the decision between current and future consumption that is achieved by tax systems of the EET type most common in the OECD. Such systems offer the alternative of paying now or deferring tax by means of contributing to private pension plans and paying tax when the benefits are derived. Thus both present and future consumption are taxed on the same basis. And, as noted above, the EET regime maintains equality of pre- and post-tax returns, another reflection of the lack of distortion imposed on the decision as to whether to consume now or in the future.

The comprehensive income tax, or TTE approach, by contrast, reduces future consumption because less is saved as compared to that would exist in a no tax world; in an inflationary world with nominal investment income taxed, it could actually impose a penalty on deferred consumption. Thus, if fiscal neutrality between current and future consumption is desired, the appropriate tax system is an expenditure-type system along the lines of those commonly used in OECD countries.

The second concept of fiscal neutrality that is of interest to us concerns the way in which different kinds of savings are taxed. Here, neutrality demands that all forms of saving be taxed in the same way. If not, more generously treated forms of saving will tend to attract greater flows of saving, regardless of their underlying economic efficiency. In general, different forms of saving are taxed very differently in countries across the OECD.

Although it is hard to make generalizations in this area, two forms of saving stand out as being conceded relatively favorable tax treatment in many countries: owner-occupied housing and private pensions. Governments in the 1980s made many statements to the effect that fiscal neutrality between forms of saving was an important goal, but few made much progress toward it. There were two main reasons. First, although most statements were in favor of a comprehensive income tax-type treatment, nowhere was any serious attempt made to adjust investment income as well as capital gains for inflation. Second, very few governments had the courage to remove the "privileges" associated with owner-occupied housing or private pension plans. Part of the reason for lack of action in this second field was the widespread belief that there are strong arguments for providing special incentives for private pension provision. It is to a discussion of these which we now turn.

Two types of argument are often advanced to defend the special tax advantages of private pensions: one that pension saving is more important than other saving; the second that saving in general should benefit from tax incentives.

Households save for a variety of reasons. They save in order to redistribute income over their lifetime to use it when they are old, sick, or unemployed, or when young children reduce the family's income and increase its outgoings. They save in order to accumulate assets from which they may derive benefits (housing services from owner-occupied housing) or that they might use to establish or develop a business. They may also save in order to leave money to their children.

It is not immediately easy to see why retirement savings should be singled out in this list. They are all worthy motives, which is no doubt why, at one time or another, in one place or another, all have been singled out for fiscal privilege, although frequently in an uncoordinated manner. Several possible arguments exist.

First, individuals may fail to perceive accurately their likely needs in old age, and this failure of perception/information is more serious here than in other areas. It would be plausible to argue that this could be so simply because at the beginning of the period when saving for retirement might make sense, old age can seem very distant. This is a basically paternalistic argument that asserts that governments know better than their people what is good for them and should distort choices using the tax system in an attempt to correct the deficiencies of individual preferences.

A second argument for singling out retirement savings is that they can be particularly significant in reducing other forms of state expenditure. If individuals fail to save for their old age, the state will have to provide incomes for them during that period. Certainly in most countries at least a part of the social security system that supports the elderly pays benefits that are related to income. If governments can encourage more people to save for their retirement, and also those who already are saving to save more, expenditure on means-tested benefits to the retired would fall. The importance of this argument will obviously vary from country to country.

A third argument might be that private pension plans are superior to other financial intermediaries. This could relate either to their investment performance or to the broader social and economic implications of their investment policies. Although this is a possible argument, it is not one that has been put forward much, and it is difficult to give it much weight, not least because in many instances private pension funds are organized by financial intermediaries engaged in a wide range of business other than the provision of pensions.

There is no suggestion that private pensions are anything other than a

TABLE 3 Household Savings Rates as Percentage of Disposable Household Income

Country	*1988*	*1993*
United States	4.5	4.6
United Kingdom	5.7	11.5
Australia	6.5	4.2
Japan	14.3	14.6
Germany	12.8	12.1

Source: Dilnot and Johnson (1993).

desirable thing, and there are some arguments for particularly favorable tax treatment for them. The strength of these arguments depends on the extent to which pension saving would fall in the absence of any special privilege. The recent experience in New Zealand is the best evidence available on this. Thus far there are insufficient data to draw firm conclusions, although there does seem to have been some move away from employer-provided pension. If it is the case that pension saving falls if tax treatment is made less generous, the important issue for policymakers is determining the most appropriate form in which to provide some incentive for pension saving.

The remaining argument for tax incentives for pensions relates to the overall level of saving. Across much of the OECD there is concern that savings rates are too low. The United States, United Kingdom, and Australia would be obvious examples, while in countries like Japan and Germany such a problem seems not to exist. Table 3 illustrates the diversity of personal savings rates. One of the longest-running debates in applied economics has been the extent to which new tax incentives for saving in a particular form will increase the overall level of saving. It is clear from the experience of Registered Retirement Savings Plans in Canada, Individual Retirement Accounts in the United States, and Personal Pensions in the United Kingdom, for example (Carroll and Summers 1987, Venti and Wise 1986; National Audit Office 1991, respectively), and the popularity of private pension saving in general, that new or existing generous tax regimes for certain types of saving can be enormously "successful," if we measure success only in terms of amounts of money flowing into the favored regime.

Such a measure of success is of little interest. Of course, tax incentives for saving in a certain form will attract funds. We need to know what impact this has on funds held in, and flowing into, other forms of saving, and the impact of the new scheme on government tax revenue, since if we are concerned about any measure of saving it is national saving, which includes public sector saving, not simply personal sector saving.

It would be quite possible for a new savings incentive to appear to be successful while in fact reducing both personal sector saving and public sector saving, and thus diminishing national saving (Munnell 1982). If we started from a world in which individuals had a relatively fixed demand for an income level in retirement, but in which savings were harshly treated by the tax system, the introduction of tax incentives would allow a reduction in current savings without any reduction in the level of retirement income, thus reducing the level of personal sector saving. At the same time, since the tax incentive would reduce tax revenue, public sector saving would fall.

There has been a great deal of empirical work using microeconomic data to attempt to provide conclusive evidence on the likely effect of tax incentives. This is an extremely difficult area, since the data requirements are very severe: complete answers would require detailed information on all assets, incomes, preferences, and expectations for a large sample of individuals over a long period. To the extent that there is a consensus, it seems to be that tax incentives can increase personal saving, and that after taking account of the reduction in tax revenue there may be a small increase in national saving (Bovenberg 1989; Feenberg and Skinner 1989; Feldstein 1992; Poterba, Venti, and Wise 1993; Venti and Wise 1987, for some representative views). Some, however (e.g., Gravelle 1991), cast doubt that even a small increase in national saving occurs. These results are still debated, and would tend to vary enormously from country to country as a function of the nature of the tax system and the determinants of saving. Certainly differences in tax systems can go only a little way toward explaining cross-country variation in saving.

All too often, it is simply assumed that more saving is a good thing, and that the tax system imposed on pensions is an effective and appropriate way of achieving a change in the level of national saving. Even if we accept that there is some argument for higher saving, it is not obvious that tinkering with the tax system is a good way of raising national saving. But it does seem reasonable to assert that we would not want a tax system that imposed a post-tax rate of return on deferred consumption lower than the pre-tax return. If our concern is not to depress saving, then we must expect to impose a tax treatment for saving in general and for pensions in particular that does not tax the return to saving. Starting from a tax system that does tax the return to some or all forms of saving, moving to one that taxes the return to fewer or no form of saving might increase national savings. But the taxation of savings in most developed countries is enormously variable (OECD 1984) with some forms of saving having a post-tax rate of return higher than the pre-tax rate and some far lower than the pre-tax rate. Consequently, confident prediction in this area is very difficult.

One problem with the common EET/expenditure tax treatment is the cash flow implication for government. While for a mature scheme and economy the deferral of tax payment until retirement is not too great a problem, in a young or developing economy such a scheme might cause problems. Given this, a TEE-type scheme may be preferable in such circumstances, providing an earlier payment of tax where governments may genuinely be constrained. Such a scheme also has the advantage that government revenue is not vulnerable to emigration prior to retirement. Schemes of this kind have been attracting more attention in recent years (Munnell 1992).

Increased Revenue from Pensions?

As tax reform gathered momentum in the second half of the 1980s, a common theme of "broadening the base and lowering the rate" could be discerned in much of the debate about what to do, and much of the description of what was done, although perhaps not so clearly in what was done. This objective seemed to imply changes in the taxation of pensions with a view to raising more revenue, which could be used to cut tax rates. As we have already noted, some countries have already moved in this direction, and many others seem to be considering the option.

Starting from a tax treatment of the EET type, there are three areas in which changes could be made in an attempt to raise more revenue: the taxation of contributions, the taxation of pension funds themselves, and the taxation of benefits paid out. We examine each in turn.

The Taxation of Contributions

One seemingly obvious way of raising revenue from taxing pensions is to give no relief, or only limited relief, to employees for contributions to pension plans. Such relief could be abolished where it exists, or restricted to a low rate of tax, or be subjected to a maximum. Yet it would be pointless to make such a change without simultaneously reviewing the tax treatment of employer contributions. Indeed, it seems inevitable that all forms of contributions to pension funds be given identical tax treatment. If not, employees, employers, and pension funds will so arrange their affairs as to make all contributions in the most tax-efficient manner. The losers in such a position will be the ill advised, or those unable to take advantage of the most lightly taxed route. As we noted earlier, the general non-exemption of employee contributions in the United States means that very few employee contributions are made, not that large amounts of tax are raised.

If employees' contributions are to be subject to tax, it seems that em-

ployers' contributions must also be. There are few practical problems in subjecting employees' contributions to tax; tax due would simply be calculated on income inclusive of contributions rather than exclusive of them. Difficulties do arise in the case of employers' contributions, however. In principle, contributions made by employers on behalf of their employees would be treated as a benefit to the employee, and taxed as income of the employee. This causes no problem where employers' contributions are clearly defined and linked to particular individuals, but difficulties arise in the much more common procedure where an employer makes general contributions to a fund related to aggregate payroll. Here the task of allocating the employer's contributions to employees is challenging. One possibility is simply to require employers to attribute general contributions to individual employees, but this would not be easy to implement.

An alternative would be to levy tax on employees who are members of defined benefit schemes on the value of their pension rights, rather than on contributions. Contributions to defined benefit schemes would remain tax-deductible, but the benefit in kind in the form of increased pension rights would be taxable. This route requires an answer to the question of what the value of the rights is; valuing such rights may be at least as difficult as allocating general contributions. Valuation is especially hard where the final pension is a function of years of employment and final salary. It is also worth noting that rights within pension plans are frequently defined quite narrowly, with pensions paid frequently far exceeding rights. If tax authorities imposed a tax on the annual increase in the value of an individual's pension rights, it is easy to imagine that such rights would very soon be all but replaced by discretionary payments. The alternative of trying to tax as income the expected value of discretionary payments many years in the future is not a task that would appeal to many revenue authorities.

The problems outlined above are not insuperable; the difficulties of taxing general unallocated contributions, for example, can be dealt with, as in New Zealand, by imposing a flat rate tax. This solution is reasonably fair if most taxpayers face the same marginal income tax rate, and somewhat inequitable in countries with multiple-rate income taxes. And although calculating the value of accrued pension rights is hard, we must remember that such calculations are already made, for example, to determine transfer values. If a country is determined to tax pension contributions, it can certainly be done.

If there is no tax relief for pension contributions, then it is inappropriate to tax the whole of any pensions in payment as income, since part would already have been taxed. The easiest solution to this, adopted by New Zealand, is to tax the income of pension funds as well, making any

further taxation of pensions in payment unnecessary. But if the income of funds is not to be taxed, full exemption from tax of pensions in payment produces a TEE regime equivalent in impact to the EET regime, although with the timing of tax payments advanced. If the aim is to move to a system that raises more revenue, without taxing contributions twice, rules to distinguish between the underlying contributions and the return on them would be needed, so that only the previously untaxed elements would be taxed. These rules would probably be quite complex, and inevitably cause some distortions. The Australian system, which imposes partial tax on contributions, fund income, and benefits illustrates some of the problems.

The Taxation of Fund Income

Taxing fund income is an alternative (or additional) route to raising revenue from pensions schemes. There is no obvious lack of logic in a system that taxes both contributions and fund income, as is done in New Zealand, although pensions in payment should then be relieved of tax. If not, pension funds would suffer a substantial fiscal disadvantage relative to other means of saving, and could be expected to decline rapidly in popularity and importance.

If the problems with taxing contributions outlined above are thought to rule out such a regime, the alternative of taxing fund assets or income while leaving contributions untaxed and benefits taxed is also open. This is the type of system that operates in Japan, although with a very low rate of tax. There is an apparent element of double taxation in a procedure that taxes the income of funds as it is received or their assets and imposes tax again when benefits are paid out. But it is the same element of double taxation that is intrinsic to the taxation of income in general, where both the capital and the returns on capital are taxed.

If fund income is to be taxed, a decision as to the rate at which it is to be charged is needed. The most obvious candidate is the marginal tax rate of the majority of members of the scheme, provided that this majority is a large one. If there is a wide divergence of tax rates among scheme members, then any single tax rate will inevitably be unfair, but the problems of attempting to allocate fund income to specific individuals and then tax it at their marginal tax rate seem likely to be too great to consider such a route seriously.

Perhaps the greatest problem in this area is designing a system that deals properly with inflation, since a system that taxes full nominal income will be very vulnerable to inflation. In New Zealand and Australia no adjustment is made to fund income to account for inflation, produc-

ing a position where at high inflation rates the post-tax rate of return can become negative. This clearly makes little sense, but the difficulties of adjusting income for inflation would be very great. The area that is most frequently chosen for the attempt to adjust for inflation is capital gains; many OECD countries now have capital gains taxes that adjust for inflation.

The combination of taxing full nominal fund income and taxing real capital gains in the fund, as in Australia, provides a strong bias to the fund in favor of assets producing capital gain rather than regular income, and this bias is a function of the rate of inflation, being stronger the higher the rate of inflation becomes. This sort of distortion will tend to affect the portfolio behavior of funds, and is clearly undesirable.

One further problem in this area relates to the way in which such a tax could be introduced if it did not already exist. One possible transition mechanism would be to close all existing schemes to new contributions, and allow these schemes to continue to accumulate tax free income and pay out taxable pensions. New contributions would go into new funds with taxable incomes. Such a transition would be challenging for pension funds, actuaries and tax authorities, but ought to be possible. An alternative route would simply be to subject fund income to a relatively low rate to begin with, reflecting the large share in the fund of "old" contributions, perhaps increasing the rate steadily over time.

The Taxation of Pension Benefits

As already noted, the main form of taxation levied on the activities of private pensions in the OECD is of benefits in payment. While it is true that if contributions and/or fund income are taxed, it is not necessarily appropriate that all benefits be taxed; where relief exists for contributions, there is a strong case for taxing benefits.

The most significant area for debate over the taxation of benefits is the appropriate treatment of lump sum payments. In several countries (Australia, Ireland, Japan, and the United Kingdom, for example), lump sum payments are taxed more leniently than pensions. Given our belief that all forms of contribution to private pensions should be taxed in the same way, we might expect to believe that all forms of withdrawal should be taxed in the same way.

Two arguments in support of preferential tax treatment for lump sums are frequently advanced. The first is that such provisions are an accepted part of the regimes where they exist, and therefore should not be changed. This is a weak argument; although it is vital to avoid too great a disruption to established expectations, and thus avoid too dramatic a

change for those approaching retirement, we cannot accept the status quo simply because that is what it is.

The second argument relates to personal capital accumulation and general capital formation and suggests that the availability of tax-free lump sums may encourage this. It is certainly the case that private capital accumulation may stimulate enterprise and risk taking in the economy. But a relief whose receipt is conditional on reaching retirement age seems somewhat inappropriate if this is the aim. There are arguments for supporting retirement savings, but these do not imply encouraging lump sum provisions—rather the reverse. There may be arguments for encouraging the accumulation of capital sums by individuals, but not especially individuals past retirement age—rather the reverse.

There seem to be no very strong reasons for treating the lump sum more favorably than pension payments for tax purposes. If lump sums are taxed, the question of whether they should be taxed in the year of receipt becomes relevant. Once more, the question is unimportant in a single-rate income tax, but significant with a graduated tax system. Under a graduated system, any lump sum might attract a marginal rate of tax well in excess of the recipient's expected average marginal tax rate during retirement. One possibility would be an averaging provision, but it could also be argued that the disincentive to lump sums caused by graduation was appropriate, and should be allowed to stay.

Most countries could raise more revenue from private pensions than they do at present. However, serious problems are associated with taxing of both contributions and fund income: it is not an accident that neither are taxed in most regimes. The one area where increased taxation seems appropriate in many countries is lump sum benefits, but even here, entrenched expectations may make raising more revenue quickly difficult.

Tax Expenditures

The last two decades have seen growing interest in the concept of tax expenditures (Surrey 1973; OECD 1984). Many countries now publish lists of tax expenditures, or lists that are widely thought of or described as being of tax expenditures, and a growing number produce such figures for the tax treatment of private pensions. These figures are widely used in the debate over tax reform, but merit rather more critical analysis than is often given them.

According to Willis and Hardwick (1978), a "tax expenditure is an exemption or relief which is not part of the essential structure of the tax in question but has been introduced into the tax code for some extraneous reason—e.g. in order to ease the burden for a particular class of

taxpayers, or to provide an incentive to apply income in a particular way, or perhaps to simplify administration. The term is used to cover, not merely specific exemption but also gaps in the charge as a result of which receipts . . . are not subject to tax."

The most obvious problem with the concept of tax expenditures, as is made clear above, is the complete subjectivity on which they are based in the case of items such as private pensions, because of the difficulty in deciding on the "essential structure" of the tax system. If we believe that the essential structure of the tax system is or should be an expenditure tax, we will argue that tax expenditures on private pensions are in general relatively small, being mainly the common relief for lump sum payments and, in cases such as Australia and New Zealand, negative. If, on the other hand, we are advocates of the comprehensive income tax, we will believe that tax expenditures on private pensions are in general very substantial. In the United Kingdom, for example, taking an expenditure tax as the base implies a tax expenditure of less than 0.1 percent of GDP, while using an income tax unadjusted for inflation as the base implies a tax expenditure around 0.7 percent of GDP (Dilnot and Johnson, 1993). These arguments, very appropriately, point us back toward the realization that the crucial debate is over the aims and structure of the whole tax system as it affects saving.

Even if we can come to some agreement over the "essential structure" of the tax system, the task of calculating the tax expenditures associated with private pensions is a very difficult one. It makes very little sense, as is too often done, to assume that we can change the tax system without changing behavior as a result. At a very simple level, if we move from a system where contributions are free of tax to one where they are taxed, either gross contributions must rise or the size of the fund and subsequent benefits will fall.[2] Either way, there will be some loss of tax to offset the tax gained from taxing contributions. If gross contributions rise, company taxes will fall if the contributions are from employers, and taxes on consumption will fall if the contributions are from employees. If the size of the fund and subsequent benefits decline, both income and consumption taxes paid by benefit recipients will fall, social security benefits paid to the retired will rise, and to the extent that fund income was taxed, that source of revenue will also decline.

More important than this, and even more difficult to quantify, is the extent to which a less favorable treatment for private pensions would lead individuals to switch their saving to other forms. If we imagine a tax regime in which private pensions are the most tax privileged form of saving, but in which other forms of saving are only marginally less privileged, it is easy to see that a major increase in the tax burden on private

pensions would probably lead to dramatic switching of savings flows to the previously marginally less privileged form of saving, resulting in very little additional revenue to the government.

Any sensible measure of the tax expenditure associated with a given tax regime for private pensions requires a clear view of the overall objectives of the tax system, of the likely impact of any change in the tax system on employee and employer contributions, the size of pension funds, the composition and level of their income, the level of benefits, the likely extent of switching to different savings vehicles or to consumption, and the tax revenue and public expenditure consequences of all of these.

This long list of difficulties is not meant to suggest that the concept of tax expenditure is without interest or value. It is important that those who argue for concessions through the tax system should provide estimates of the cost of such concessions that can be compared to alternative means of support. But in the field of private pensions, producing an informative estimate of tax expenditures is likely to be possible only when we have achieved a clear idea of the aims and effects of the tax system. Measures of tax expenditure that ignore the arguments set out above may well do more harm than good.

Conclusion

Finding an appropriate tax system for private pensions is not easy, and cannot be done without considering the rest of a country's tax system, especially as it affects saving. Much of the interest in this area has been a result of the belief that substantial extra revenue could be raised here. It may be possible to raise some additional revenue without major dislocation, but significant increases in taxation may not be desirable from all points of view, will inevitably be difficult, will lead to much behavioral change, and should not be seen as an easy answer to anything. It is no accident that the basic form of pensions tax regime that is most common is the EET type, for which there is a strong economic case.

Notes

[1]On comprehensive income taxation, see Carter Commission (1966). On expenditure taxes see Kaldor (1955), Andrews (1974), and US Treasury (1977), and Pechman (1980).

[2]The United Kingdom authorities, for example, note that their estimates of the costs of tax allowances and reliefs "make no allowance for the fact that changes in tax reliefs may cause people to change their behavior. For example, removing the tax privileges of one form of saving may lead people to switch to another tax privileged form of saving" (HMSO 1992).

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Comments by Angela E. Chang

The chapter by Andrew Dilnot reviews the tax treatment of pensions in a number of developed countries and lays out several issues that deserve further discussion and research.[1] In reviewing the favorable tax treatment of pensions in 14 countries, the chapter focuses on common "themes" observed in the various countries. For example, the form in which pensions receive favorable tax treatment is similar across the countries. Favorable tax treatment is granted to one or more of the following transactions that occur as related to pensions:

- tax-deductible contributions to the pension plans, by employers and/or employees;
- tax-exempt earnings from investment of the pension funds; and
- tax-exempt payment of retirement benefits from the pension funds.

Another common theme concerns the motivation for granting favorable tax treatment to pensions. Dilnot discusses several possible motivating factors that may have led policymakers in these countries to grant the specific favorable tax treatment that we observe, such as a desire to raise the aggregate level of savings and to reduce the financial burden on social security programs.

Lastly, in several countries, the value of favorable tax treatment of pensions is becoming the subject of increasing policy debate in light of the desire for fiscal restraint in these countries. The debate is about whether the benefits from encouraging pensions outweigh the cost of the foregone tax revenue. In particular, if the favorable tax treatment of pensions is curtailed, would that cause national saving to fall? This is a question about the sensitivity of pension decisions to taxes.

There is substantial literature about the tax sensitivity of individuals' contributions to pensions, so I will briefly discuss what we have learned from the literature. Research in this area has concentrated on individ-

uals' contributions to individual retirement-saving vehicles, such as IRAs and 401(k)s.

Several studies on IRAs (Feenberg and Skinner 1989, Venti and Wise 1990) and 401(k)s (Poterba, Venti, and Wise 1993) indicate that saving in these instruments does not "crowd out" other forms of saving, suggesting that an increase in IRA or 401(k) saving raises personal saving. There is also evidence that the increase in personal saving associated with IRAs outweighs the foregone tax revenue (Feldstein 1992). This suggests that curtailing the favorable tax treatment of these vehicles may diminish national saving.

In contrast to the substantial literature on the impact of taxes on individuals' contribution to pension plans, there has been little research about the following issues:

- tax sensitivity of pension contributions by firms;
- tax sensitivity of the investment of pension funds; and
- the effects of the taxes imposed on the payment of pension benefits, particularly the tax treatment of lump sum distributions.

Let me expand on the discussion of areas for future research beyond the issues mentioned in Chapter 7. An interesting explanation has emerged from the literature about the tax sensitivity of individuals' saving decisions—that individuals may not always make saving decisions based on rational utility maximization. For example, one explanation for the high participation rates in 401(k)s is that the payroll deductions of 401(k) contributions serve as a self-control mechanism. Several economists (e.g., Thaler 1990) are exploring the importance of self-control factors, rules of thumb, mental accounting, and other behavioral models of saving decision.

Another thought-provoking observation concerns the 10 percent tax penalty on pre-retirement lump sum distributions that are not rolled over into IRAs or other tax-deferred instruments. Congress imposed this tax penalty in 1986, anticipating to raise little tax revenue from it. For 1987–89, Congress expected to raise about US$ 500 million in tax revenue from the tax penalty. The actual tax receipt from the tax penalty during the period was over US$ 1.8 billion.

One explanation for the low impact of the tax penalty on rollovers is liquidity constraints. Many more individuals may be liquidity-constrained than expected, such that they spent their lump sum distributions even though they paid the 10 percent tax penalty (Chang 1993).

Thus, while more data in terms of quality and quantity would further our knowledge about the tax sensitivity of individuals' saving decisions as

regards pensions, refining the economic framework to take account of the possibility of individuals' using self-control mechanisms and rules of thumb to make saving decisions and the possibility of liquidity constraints may also produce important insights. Finally, until we have an adequate economic framework and sufficiently accurate data, it would be premature to answer one way or the other that curtailing the favorable tax treatment of pensions will raise national saving.

The views expressed are solely those of the author and do not necessarily reflect the official position of the Federal Reserve Bank of New York, the Board of Governors, or the Federal Reserve System.

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Comments by Sylvester J. Schieber

Andrew Dilnot's chapter presents a concise analytical framework for assessing the implications of alternative tax treatments of pension savings. This framework is used to show how the alternative timing of taxation of contributions to plans, income accruing to plan assets, and benefit payments under pension plans results in a variety of tax and benefit outcomes. He employs the framework to show how several of the major economies represented in the OECD tax pension accruals. He assesses the overall objectives for a taxing system and some of the dilemmas that these systems pose relative to pension design and sponsorship. He discusses the governmental revenue issues that are pushing some, if not all, of the countries he covers in his analysis to reevaluate their tax treatment of pension plans. He informs us that another of the United States' great cultural creations, tax expenditures, has spread like Mickey Mouse and the Golden Arches around the world. Finally, he leaves us with the conclusion that increases in the taxation of pensions relative to the traditional treatment accorded them in most countries "may not be desirable from all points of view, will inevitably be difficult, will lead to much behavioral change, and should not be seen as an easy answer to anything."

I like Dilnot's chapter, though having said this, I believe it has two shortcomings. The first shortcoming is that I believe the chapter fails to probe deeply the countervailing policy tensions that persist between the motivations for pension and retirement policy, on one hand, and, on the other hand, analysts who argue that the comprehensive income tax is the appropriate base by which to assess pension policy. The second shortcoming is that Dilnot's presentation is incomplete, not in its broad and analytical framework, but in the detailing of pension outcomes that result from alternative taxing policies. Before I turn to these two points specifically, I feel compelled to address an issue that Dilnot raises in his analysis of the objectives for tax systems.

Clarifying the Analytical Framework

In assessing the goals of a taxing system, Dilnot looks at their treatment of consumption and savings and the desirability minimizing distorting behavior. He states that "neutrality between consumption and savings is achieved by a comprehensive income tax on real income of all types." While this statement is true, its misapplication in the development of the concept of tax expenditures accorded pensions in many countries and in the development of pension policy in others must be understood. The problem is that the actual application of the concept that Dilnot so simply states generally ignores that the "neutrality between consumption and savings is achieved by a comprehensive income tax on *real* income," while when operationalized, the analytical models and estimates are generally derived using nominal rather than real incomes.

In order to understand this point, consider a simple case where there are no taxes applied against income. In this case, a consumer can enjoy a level of consumption (C) equal to his or her entire income (Y) in the time period in which it is earned (P),

$$(1)\quad C_P = Y_P.$$

Alternatively, the consumer can invest his or her income and earn interest at a rate (i), and enjoy future income as follows:

$$(2)\quad C_F = Y_P(1 + i).$$

The consumer can trade off current versus future consumption at the rate

$$(3)\quad \frac{C_P}{C_F} = \frac{Y_P}{Y_P(1 + i)} = \frac{1}{1 + i}.$$

Under this model, the consumer is paid an interest premium for deferring consumption. The way our income tax system works, an individual is faced with a slightly different scenario than that laid out in equations (1)–(3). Under the current federal tax system, if an individual consumes current income, taxes have to be paid on that income first. That is,

$$(4)\quad C_P = (1 - t)\, Y_P,$$

where t is the income tax rate. Under the IRC provisions favoring retirement plans, workers are faced with the opportunity of saving out of current income before taxes, but they have to pay taxes on the amount

distributed at retirement. In this case, future consumption can be specified as

$$(5)\quad C_F = (1 - t)\,[Y_P(1 + i)].$$

If a comprehensive income tax is introduced into this world, the special treatment of retirement plan contributions would no longer be allowed. Future consumption in this regime is

$$(6)\quad C_F = (1 - t)\,Y_P[1 + i\,(1 - t)].$$

Under this regime the consumer would trade off current versus future consumption at the rate

$$(7)\quad \frac{C_P}{C_F} = \frac{1}{1 + i(1 - t)}.$$

The application of the "comprehensive" income tax to qualified retirement plans would equalize the tax treatment of pension savings with the tax treatment of a regular savings account under our tax laws. Comparing equations (5) and (6) shows that the existence of tax-free earnings for retirement savings enhances the efficiency of the tax-qualified plan. The difference between the two is that in the former the effective tax rate on the interest accruals in the account is zero, but in the latter it would be the statutory rate.

The problem is that the current measurements of tax expenditures accorded pensions in the United States are based on the concept of the comprehensive income tax applied to the nominal income accruing to pension assets. This approach overlooks the fact that some portion of the returns on assets over time does not reflect real economic return for deferring consumption, but rather makes up for the decreased purchasing power of money resulting from price inflation. That is, the interest rate i in equation (6) above is composed of two elements:

$$(8)\quad i = \frac{dP}{P} + r$$

where P is the price level in the current period and dP is the change in prices from the current period to the future period, and r is the real rate of return on assets in excess of inflation. In other words:

$$(9)\quad \frac{C_F}{C_P} = \frac{1}{1 + (dP\,/\,P)(1 - t) + r(1 - t)}$$

TABLE 1 Relative Value of Money in a Normal Savings Account Paying a Rate of Return Equivalent to a 5 Percent Inflation Rate and Subject to 25 Percent Tax Rates

Year	*Nominal Value of Constant Purchasing Power*	*Nominal Value of Savings*	*Gross Interest*	*Net Interest*	*Purchasing Power of Savings (% of original earnings)*	*Effective Tax Rate on Original Earnings*
0	1,000.00	750.00	37.5	28.1	75.0	25.0
1	1,050.00	778.13	38.9	29.2	74.1	25.9
2	1,102.50	807.30	40.4	30.3	73.2	26.8
3	1,157.63	837.58	41.9	31.4	72.4	27.6
4	1,215.51	868.99	43.4	32.6	71.5	28.5
5	1,276.28	901.57	45.1	33.8	70.6	29.4
6	1,340.10	935.38	46.8	35.1	69.8	30.2
7	1,407.10	970.46	48.5	36.4	69.0	31.0
8	1,477.46	1,006.85	50.3	37.8	68.1	31.9
9	1,551.33	1,044.61	52.2	39.2	67.3	32.7
10	1,628.89	1,083.78	54.2	40.6	66.5	33.5
20	2,653.30	1,566.11	78.3	58.7	59.0	41.0
30	4,321.94	2,263.10	113.2	84.9	52.4	47.6

Source: Wyatt Company simulations.

In order for deferred consumption to be at least of equal value to present consumption, the rate of return on deferred consumption has to equal at least the rate of inflation. Since the return defined by the factor dP/P is merely maintaining the purchasing power of income across periods, taxing that factor subjects income to an added tax if it is not consumed immediately. It is this conception of a "comprehensive tax" where the return on assets that covers inflation is taxable that is the theoretical basis for measuring tax preferences for retirement and savings plans. Under this model, if there is any inflation at all in the economy, income deferred for retirement purposes outside a tax-qualified plan is subjected to a higher tax than if it is used for immediate consumption purposes.

Using a hypothetical situation where the marginal statutory tax rate is 25 percent and the annual rate of return on assets just equals the inflation rate, Table 1 shows that deferring consumption under this type of regime results in a gradual deterioration of the purchasing power of money saved relative to the purchasing power of the income originally earned. If the earnings are put toward consumption in the year earned, the taxpayer can consume 75 percent of the value of earnings. If consumption is deferred just one year, the purchasing power of the account is only 74.1 percent of the value of the initial earnings. This loss in pur-

TABLE 2 Effective Tax Rates on Current versus Future Consumption When Consumption Is Deferred through a Regular Savings Account at 5 and 10 Percent Interest and Inflation Rates

	Statutory Tax Rate	
Consumption Time Frame	*25 Percent*	*33 Percent*
5 Percent Interest and Inflation Rates		
Immediate	25.0	33.0
After 10 years	33.5	42.8
After 20 years	41.0	51.2
After 30 years	47.6	58.3
10 Percent Interest and Inflation Rates		
Immediate	25.0	33.0
After 10 years	40.4	50.6
After 20 years	52.6	63.6
After 30 years	62.4	73.1

Source: Wyatt Company.

chasing power results because the inflationary return on the asset is taxed. No added income accrues to the account holder under the assumptions, just added tax because of the decision to defer consumption. If the savings are held in this environment for 10 years, the effective tax on the original earnings rises to 33.5 percent. After 20 years it is 41.0 percent, and after 30 years it is up to 47.6 percent.

Further analysis of this phenomenon shows that the effective tax rate on earnings not immediately consumed varies in relation to a number of factors as shown in Table 2. The results in the table show that the effective tax rate varies with the underlying statutory tax rate, the duration of time that consumption is deferred, and the economy's underlying inflation rate. Under these assumptions, 50 percent goes to keep up with the eroding purchasing power of money, and 25 percent of the gross interest goes to pay taxes.The effective yield on the deferred consumption in this case implies a 50 percent tax on the real return, double the statutory tax rate assumed in the development of this example. In other words, the concept of the comprehensive income tax behind the measurement of tax expenditures related to tax-qualified retirement plans in the United States would penalize people who deferred consumption during their working career.

Conflicts Between Pension and Tax Policies

While the measurement of the tax expenditures related to employer-sponsored retirement plans raises several methodological issues, there is

an even more fundamental problem with the estimates in that the theoretical concept is inconsistent with other stated public policies. Most governments of developed economies around the world would be reluctant to espouse publicly a national retirement policy that would advocate that retirees should lead reduced standards of living in retirement. Matching retirement living standards with pre-retirement standards does not imply that pre-retirement income levels have to be maintained. Retirees no longer have the direct expenses related to an active working life. If workers help to finance the national retirement scheme through the payment of payroll taxes, they will no longer be burdened by payroll taxes after quitting work, and other tax obligations may be reduced as well. If workers help to finance their own retirement security through steady savings in either tax-favored or unfavored plans, they will no longer be required to make such provision in retirement. But after taking into account all the differentials in expenses related to working relative to retirement, typical government policy is to encourage, if not provide, that generally acceptable living standards be attainable in retirement.

Indeed, one of the stated goals of public policy of the United States federal government, as specified in the Older Americans Act of 1965, is that the older citizens of this nation enjoy "an adequate income in retirement in accordance with the American standard of living."[1] One of the problems with the Older Americans Act is that it is not specific about the levels of income that would satisfy "the American standard of living." There are other conventional measures of adequacy that we might consider in this context, however. At the lower end of the income spectrum there are absolute measures of adequacy that are implied by the federal government's official poverty line. At income levels above these minimalist measures, adequacy of retirement income is often measured against the ability to maintain pre-retirement living standards.

An analysis of the measures usually used to assess the adequacy of benefits provided through retirement programs shows that most countries' social security benefits by themselves are inadequate to finance consumption levels commensurate with generally acceptable standards of living across a broad range of the income spectrum. This means that, in order to attain adequate retirement income to sustain acceptable standards of living, individuals must accumulate other financial resources during their working careers by deferring consumption until their retirement. This public policy goal is inconsistent with the concept of the comprehensive income tax and its application to the tax deferrals on retirement plan accumulations in the United States and elsewhere around the world. If attaining government retirement policy goals implies that individual workers have to save some of their lifetime wages to help meet

their own retirement needs, why would government impose a "tax penalty" on them for doing so?

At times, past U.S. federal budget documents submitted to Congress have been unequivocal in their support of the issues being raised here regarding the measures of tax expenditures related to retirement savings. For example, the 1993 Budget observed that decisions on whether specific provisions of the tax law are preferential exceptions to the baseline provisions "is a matter of judgment."[2] The fiscal 1993 budgetary document specifically addressed the issue of taxing the inflationary return on savings. It states: "A comprehensive income tax would adjust the cost basis of capital assets and debt for changes in the price level during the time the assets or debt are held. Thus, under a comprehensive income tax baseline the failure to take account of inflation in measuring . . . interest income would be regarded as a negative tax expenditure (i.e., a tax penalty)."[3]

If including the inflation component of interest earnings on retirement assets results in a "negative tax expenditure," it should exactly offset the positive inflation component of returns on pension assets that is built into the annual estimates of these tax expenditures included in the annual federal budgets. In other words, the tax expenditures related to tax-qualified retirement plans included in the annual federal budget estimates are not only inconsistent with other federal policy, but are exaggerated by the amount of inflationary return on assets in all the respective plans. If the inflationary return on pension assets is not included in the calculations, the overall magnitude of the tax preferences accorded employer-sponsored retirement plans declines significantly.

The Comprehensive Income Tax at Work

Until 1987 New Zealand followed the normal practice of providing tax deductions for employer and employee contributions to pension plans. In addition, exemptions from tax on investment income were provided to the plans. Benefits paid by the plans were taxed on a concessional basis. The changes introduced in 1987 eliminated the tax deductibility of employee contributions, subjected employer contributions to a withholding tax, and subjected investment income to a tax. The goal of these changes was to remove all tax incentives for retirement savings and achieve tax neutrality between all forms of personal savings.

By implementing tax neutrality in this fashion the government actually subjected any earnings deferred for retirement purposes to much higher tax rates than if the earnings were used for immediate consumption purposes as shown earlier. While the new tax structure was neutral be-

tween savings within an approved retirement scheme versus some other forms of savings, it was not neutral between income earned and consumed in this period versus income earned in this period but saved for later consumption. Under this model, the only way to equalize the statutory tax rate on earnings that are saved relative to those that are not is by reducing the inflation rate in the economy to zero.

In addition to its tax treatment of private pensions, the government of New Zealand has had another structural problem in regard to its support of retirement programs. This particular problem has to do with its public social security program. This program has paid relatively high benefits, equal to 45 percent of average salaries in the economy for a single individual living alone. For a retired couple the benefit is approximately 65 percent of the average wage level. These benefit levels suggest that New Zealand's national retirement program is providing benefits at a level that would come close to sustaining the pre-retirement living standards for a significant portion of the workers reaching age 60. The problem that New Zealand has faced is that it cannot afford benefits at this level of generosity.

Under the 1991 New Zealand government's budget proposals regarding the move from the guaranteed retirement income (GRI) scheme to a revised national superannuation scheme, an income test would begin to tax away the national retirement benefit at incomes above US$ 4,160 for couples at a rate of a 50-cent reduction in the government benefit for each additional dollar of employer-provided benefit through a life insurance annuity or from a registered superannuation scheme. If that 50 percent tax rate were to be applied to the nominal value of accumulated saving in the examples we were discussing earlier, it would basically reduce the net real return on savings to zero or negative rates if the asset were held for any significant period of time. Under this model it is possible to conceive of easily plausible scenarios where workers would be better off burying their retirement savings in a jar in their back yard than investing them in an approved retirement scheme. From a macroeconomic policy perspective, encouraging people to bury their retirement savings in jars should be discouraged.

As of 1994, the budget proposal outlined by the government during 1991 has not been implemented because of the concerns voiced about it. The revised phase-out arrangement, which applied from April 1992, provides for a reduction in national superannuation by 25 percent of each dollar earned in excess of US$ 4,160 for single people and US$ 6,240 for couples. Only 50 percent of benefits paid by registered superannuation schemes and annuities paid by life offices are included in the phase-out calculation because the balance is, in effect, deemed to be a repayment of the earnings originally contributed to the plan.

A further complicating and distorting element of the New Zealand tax law is that housing continues to receive preferable tax treatment. If the goal is tax neutrality, then the preferential treatment of housing is inappropriate. While tax neutrality may be the stated goal for the current tax treatment of some forms of wealth accumulation, the inconsistency with which it is being applied undoubtedly will distort behavior.

Notes

[1]Public Law 89-73, USC.
[2]*Budget . . . Fiscal Year, 1993*, Part Two, p. 23.
[3]Ibid.