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Tax Expenditures: The Personal Standard

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I. Introduction

The preparation of tax expenditure budgets hinges crucially on the determination of a reference or standard tax structure. The very concept of tax expenditures is, in essence, a concept of deviations from a norm, and anyone who prepares a tax expenditure budget must establish a norm against which to compare the actual tax structure. This fact is well-recognized in the literature, and some government publications (such as the U.S. Treasury's annual tax expenditure report in *Special Analysis G* of the Federal government budget (OMB, 1988b)) are also quite explicit about this fact. This paper discusses the determination of a standard for tax expenditure analysis of personal taxation.

In a world where "everyone" agrees about what the tax structure is supposed to be, the preparation of a tax expenditure budget reduces to a technical exercise. One observes what the tax structure is, compares that with the appropriate reference or standard tax, notes the discrepancies, and sets out to estimate their magnitudes. This is not an easy task to execute, since actual tax policies tend to be enormously complex things. It takes some thought to determine, for example, whether or not the tax treatment of private pension funds constitutes a deviation from the standard tax structure. And even after all of the deviations have been identified and catalogued, there remains the formidable problem of *quantifying* them. Thus, even when the preparation of a tax expenditure budget has been reduced to the level of a "technical" exercise, a substantial amount of important and non-trivial economic analysis remains to be done.[2]

But there are real difficulties in tax expenditure analysis that are more basic than these technical ones. For there is no reason to expect that "everyone" will agree on what the reference tax policy should be — nor do they, in fact. There are always going to be differing philosophies of taxation, each with at least some adherents. Some of these adherents will be found in legislatures, some will be found in the community of government bureaucrats and staff analysts, some will be found in the accounting and legal professions, some will be found among academic economists, and so on. How is the standard for tax expenditure analysis to be chosen in the face of this diversity? It is possible that a degree of consensus will be achieved from time to time, such that the "bulk" of "informed" opinion, however that may be determined, comes to agreement on the basic issues. In such circumstances, the determination of the reference tax standard may be relatively non-controversial. But when there is serious debate about the foundation of the tax structure, the choice of any particular tax expenditure standard is certain to offend some strains of opinion, at least if tax expenditures are taken seriously.

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[2]It might be noted also that the identification and measurement of tax expenditures is not the whole task of tax expenditure analysis. There is also the question of the *interpretation* of tax expenditures. For example, it is common to list tax expenditures in groupings corresponding to different "functional" categories such as are found in ordinary expenditure budgets — housing, social services, transportation, etc. The presentation of tax expenditure data in this way can be most informative, and has implications for the nature of the public budgetting process. These issues are left aside in this paper, however.

When Surrey wrote his classic work on the subject (Surrey, 1973), there appears indeed to have been a relatively high degree of consensus among at least academic economists concerning the "proper" or "ideal" tax structure. Most leading economists writing in the 1950s and 1960s seem to have settled on Haig-Simons (or Schanz-Haig-Simons) comprehensive income taxation as the proper system of personal taxation, at least in broad outline, for modern economies.[3] The measurement of tax expenditures by government agencies has been an exercise in what might be called "applied comprehensive income measurement" ever since. A good deal of the discussion since then about the construction and interpretation of tax expenditure estimates has focussed on whether some particular approach to estimation is really the most consistent with the Haig-Simons ideal, or whether one could improve the system of tax expenditure accounting in some way, relative to this standard.

This discussion has been of considerable value and interest. Even at present, many economists and other tax analysts would put the comprehensive income tax forward as the best practically attainable tax structure. And relative to this standard, there remain many aspects of tax expenditure accounting that are subject to lively debate. The first objective of this paper, taken up in Section II, is to discuss some of the most important of these issues.

However, if the world of tax policy analysis in the late 1960s was characterized by an unusual degree of professional consensus about the desirability of the Haig-Simons comprehensive income tax ideal, that consensus seems to have broken down to a considerable extent in recent years. Many economists and other commentators on tax policy have come to support quite different approaches to taxation, often some variant on the personal consumption or expenditure tax. One might date this trend from the influential 1977 U.S. Treasury study on *Blueprints for Basic Tax Reform* (reprinted as Bradford, 1984). The past decade has indeed seen a proliferation of proposals for tax reform, often of a rather fundamental kind. Extended discussion of major tax reform appears, for example, in Hall and Rabushka (1985), Aaron and Galper (1985), Bradford (1986), and McLure (1986), to name only a few among the important U.S. contributions to the area. The publication of the so-called "Treasury I" proposal (U.S. Treasury, 1984) is also notable in this connection. In Canada, proposals for reforms along consumption tax lines can be found in Boadway, Bruce and Mintz (1987), Economic Council of Canada

[3]The Carter Commission (Royal Commission on Taxation, 1966) provided a classic presentation of this view. The basic references are Haig (1921) and Simons (1938). As will become clear, the term "Haig-Simons" income is quite standard in the literature on tax expenditures, and to minimize confusion I continue to use that terminology here. However, I believe that it is actually misleading to characterize Haig as a supporter of the comprehensive income concept. As explained in Wildasin (1989), I believe that it is more accurate to say that consumption, not comprehensive income, was Haig's ideal tax base.

(1987), and the Macdonald Commission Report (Royal Commission on the Economic Union and Development Prospects for Canada, 1985).[4]

A breakdown of consensus about the basic structure of taxation can complicate life considerably for the estimator of tax expenditures. This is so especially because, as we shall see, some of the most important tax expenditures, when measured relative to the Haig-Simons standard of taxation, are not tax expenditures at all when held up against the standard of a consumption tax. Tax expenditure analysis is also complicated by the fact that modern tax systems are large and multi-faceted. The individual income tax is but one component of the overall tax system. In the United States, individual income tax revenues have amounted to about 40-45% of the revenue of the Federal government for over three decades now.[5] Back in the early postwar era, the corporation income tax was the second leading source of revenue for the Federal government, contributing as much as 32% of Federal revenue in 1952, for example. But in recent years the corporate share of tax revenue has dropped to below 10%. The gap has been filled by the payroll tax for social security, which now provides over a third of Federal tax revenue. The payroll tax is not so important in the overall Canadian tax structure, although it does account for about 15% of Federal government revenue.[6] But the personal income tax still amounts to only around 40% of Federal revenue, and the corporate tax provides around 15%. In Canada, unlike the U.S., Federal sales and excise taxes (especially the manufacturer's sales tax) are quite substantial, bringing in around 20% of Federal tax revenue. Thus, although the U.S. and Canadian tax mixes differ, non-income taxes (the payroll tax alone or together with the sales tax) dominate the corporation income tax in size and indeed rival that of the individual income tax itself. In such a world, the question of how tax expenditure analysis should accommodate a *mix* of taxes becomes increasingly important. Under current U.S. practice, tax expenditure accounts deal with the individual and corporate income taxes, but ignore the payroll tax. The latest Canadian tax expenditure estimates (Department of Finance, 1985) also ignore the payroll tax, although they do include commodity and sales taxes.

These issues — the question of the choice between income and expenditure taxation, and the role of the payroll tax and other taxes in the overall tax structure — are not unrelated in the sense that they both call into question the preparation of tax expenditure estimates based entirely on traditional Haig-Simons concepts of individual income taxation (together with

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[4]There have been far-reaching proposals for reform in other countries as well — i.e., the Meade Committee report (Institute for Fiscal Studies, 1978) in the U.K. Much of the discussion in this paper, insofar as it deals with the features of any particular tax system, will refer to U.S. practice. Most of the problems of tax expenditure analysis that are treated here are not unique to the U.S., however, and the bulk of the discussion, being concerned with basic conceptual questions, would be applicable to the development of tax expenditure accounts in many countries. Thus, the references to the U.S. are mainly for illustrative purposes. Some of the important divergences between U.S. and Canadian taxation will be noted along the way, however.

[5]This and the U.S. data to follow are found in OMB (1988c), Table 2.2.

[6]Canadian data are taken from Economic Council of Canada (1987), Table 2-1.

some more or less integrated view of the corporate income tax). Thus, section III looks at the consumption tax as an alternative to the Haig-Simons standard, in order to see what this might imply about the measurement and interpretation of tax expenditures. In addition to discussing the choice of tax base for tax expenditure analysis, section III also deals with several other general issues of importance. These include the problems of determining the appropriate tax rate structure and the accounting period for tax expenditure purposes.

This paper does not advocate any one particular standard as *the* appropriate standard for tax expenditure analysis. However, the discussion of sections II and III does indicate that reasonable, disinterested observers might have rather different views about how tax expenditures ought to be measured. The practical question is, of course, to decide how to proceed in the face of this diversity of opinion. This question is taken up in section IV, where the potential uses of tax expenditure analysis are discussed. It is suggested that the usual presentations of tax expenditures, though valuable, should be augmented by estimates based on alternative standards. Together, these groups of estimates would provide a more balanced perspective on several major aspects of tax policy, which would probably increase the usefulness and impact of tax expenditure analysis for policy purposes.[7]

II. The comprehensive income tax standard

Ever since Surrey's original (1973) work, tax expenditure analysis has frequently relied on some variant of the concept of comprehensive income as the relevant standard for evaluating the individual income tax. In U.S. discussions, the original Treasury document is often quoted: tax expenditures are to account for "the major respects in which the current income tax bases deviate from widely accepted definitions of income and standards of business accounting and from the generally accepted structure of an income tax".[8] More recently, Surrey and McDaniel (1985, p. 186) have written, "The standard used by the Treasury in 1968 was 'widely accepted definitions of income' developed by economists over many years and culminating in the Schanz-Haig-Simons

[7]Since tax expenditure issues arise with respect to every aspect of the tax structure, it is impossible to provide a comprehensive treatment of the subject in this paper. As the title indicates, the scope of the paper has been limited by focussing on the *personal* tax structure. Jog and Mintz (1989) discuss tax expenditures in relation to business taxation. Certain issues concerning the joint treatment of personal and business taxation — mainly having to do with integration of the two tax structures — are touched upon below, but are not dealt with in detail. Similarly, issues associated with the definition of the taxpaying unit (individual vs. household) and with gifts and bequests are touched on only lightly.

[8]U.S. Treasury (1969, p. 326), quoted, i.e., in Surrey and McDaniel (1985, p. 184).

(S-H-S) definition, which is accepted by most economists in the United States and elsewhere."[9]

However, although Haig-Simons principles are often invoked in tax expenditure discussions, the income measures actually used in tax expenditure accounting have never fully corresponded to the "ideal" Haig-Simons base. This has been done on grounds of tractability: "[T]he S-H-S definition, though theoretically correct, is too rigid and demanding to be applied comprehensively .... It remains an 'ideal', a 'theoretically pure treatment'". (Surrey and McDaniel, 1985, p. 188, citing OMB, 1981, p. 208.) "[T]he 1968 Treasury analysis tempered the S-H-S definition .... The objective was to exclude from classification as tax expenditures certain items of income that would be covered by the S-H-S definition." (Surrey and McDaniel, 1985, p. 188.) It appears that there is no quarrel here with the fundamental principle of comprehensive income taxation, and no attempt to propose some different principle. The deviations from the comprehensive income tax ideal seem to be justified entirely on grounds of practical workability.[10]

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[9]The latest official Canadian publication on tax expenditures, by contrast, is not at all committed to a particular concept of what the reference tax base should be (Department of Finance, 1985). Instead, it examines (p. 3) those features that are thought to be "partial" or *ad hoc*, or that are "clearly" functionally equivalent to a direct expenditure program. Unfortunately, there is no obvious way to determine what features of the tax structure meet these criteria. Indeed, in the absence of any principles for the determination of the reference tax structure, "*the identification of selective tax measures [...] is in many instances an arbitrary exercise*" (Department of Finance, 1985, p. 5; emphasis in original). For the purposes of this paper, it will be taken for granted that one does want to determine a benchmark tax structure in a purposeful way, so as to avoid the arbitrariness that otherwise ensues.

[10]In an early exchange on the concept of tax expenditures, Bittker (1969, p. 248) states that "[a]lthough Mr. Surrey in not explicit on the point, his proposal has much in common with the call for a comprehensive income tax base, which ... presupposes an ideal tax structure ... based on the Haig-Simons definition of income". In reply, Surrey and Hellmuth (1969, p. 531) write "the Treasury discussion and analysis at no point adopted H-S as the model for the tax expenditure study". This appears to conflict with the statement of Surrey and McDaniel quoted above. However, according to the OMB (1988b, p. G-3), "the normal tax concept [i.e., the standard for calculating tax expenditures] can be thought of as a practical compromise with the ideal of a comprehensive income tax, one that avoids certain complexities while preserving the general idea". Similarly, Break (1982, pp. 290, 291) writes that "we will assume that it is the accretion model which most people have in mind as the theoretical ideal for personal income taxation". Break goes on to say that "the theoretical Haig-Simons concept ... is not relevant because ... it would be far from [ideal] in operation in an imperfect world", and accordingly favours a "best attainable income tax" standard. Remarks of this type indicate that Haig-Simons really is the standard being used, and that the only question is how nearly this standard can be approximated for practical purposes. Thus, in practice, one seems justified in saying that Haig-Simons has been *the* standard for tax expenditure analysis.

The desire to keep the tax expenditure accounting process manageable and in conformity with some basic administrative and political realities is quite understandable. One needs to distinguish sharply, however, between features of the tax expenditure standard that are incorporated because they are consistent with some underlying philosophy of taxation and those features that are incorporated as concessions to technical feasibility, computational convenience, or political reality. In determining the standard personal tax structure to be used for tax expenditure analysis, it may be misleading to make too many concessions at the outset. The problem with an impure standard is that although one classifies deviations from this impure standard as tax expenditures, it can be difficult to tell whether or not the deviation from the impure standard moves the tax system nearer to or further from the pure standard that fundamentally underlies the whole exercise. The proper interpretation of the tax expenditures that are measured against the impure standard is thereby made more difficult.

This section will therefore discuss several major issues in tax expenditure accounting from the viewpoint of the true comprehensive income tax standard. To establish some sense of priorities, it is useful to identify those aspects of the tax law that have given rise to some of the largest of estimated tax expenditures. Table 1 shows those items of tax expenditure under the individual income tax for the U.S. which in 1987 exceeded $10 billion, along with some very closely related smaller items.[11] The values of the estimated tax expenditures for the same items for 1988 are shown as well. In the aggregate, these items total $358 billion in the 1987 accounts, and constitute almost 90% of total tax expenditures associated with the individual income tax in that year. Since individual income tax expenditures are large relative to corporate income tax expenditures (the only other category of tax expenditures that are estimated in the U.S. at the national level), the tax expenditures listed in Table 1 make up the bulk of tax expenditures in all U.S. accounts. It is interesting to note that the estimated tax expenditures for 1988 are far below those for 1987.

Let us now turn to a discussion of several specific types of actual and potential tax expenditures. We shall see to what extent the standard and estimates used in practice coincide with what one would find using the Haig-Simons ideal standard. We begin with some of the large tax expenditure items noted in Table 1, and then go on to discuss some items that are not

[11]For our purposes, recent U.S. tax expenditure accounts should serve adequately. For other countries, such as Canada, the ranking of tax expenditure items by size would differ from that of the U.S., and such rankings are in any case somewhat arbitrary since they depend on the particular way that the various tax expenditure categories are defined, on the degree of aggregation used in the accounts, and so on. However, in general terms, the issues that will be discussed are certainly of importance for many different countries. Note that the tax expenditures listed in Table 1 are given in *outlay equivalent* terms, i.e., they show the cost of replacing the particular part of the tax law with direct subsidies that would yield equal after-tax benefits to their recipients.

Table 1: Major Tax Expenditures in the U.S. Personal Income Tax: 1987-88*

	1987	1988
Capital gains:		
Partial exemption of capital gains income	96,950	265
Related items:		
Deferral of capital gains on home sales	2,970	4,435
Exclusion of capital gains on home sales for persons age 55 and over	2,935	3,730
Carryover basis of capital gains at death	9,210	16,030
Subtotal: capital gains	112,065	24,460
Private pensions:		
Net exclusion of pension contributions and earnings		
Employer plans	64,120	56,150
Individual retirement accounts	19,345	11,995
Related item:		
Keogh plans	3,780	2,125
Subtotal: private pensions	87,245	70,270
Interest deductions:		
Deductibility of interest on consumer credit	11,845	6,530
Deductibility of mortgage interest on owner-occupied homes	34,745	33,675
Subtotal: interest deductions	46,590	40,205
State and local tax deductibility and bond interest exclusion:		
Exclusion of interest on public purpose state and local debt	11,595	12,035
Deductibility of non-business state and local taxes other than on owner-occupied homes	22,480	17,250
Deductibility of property tax on owner-occupied homes	10,285	10,100
Subtotal: state and local	44,360	39,385
Health:		
Exclusion of employer contributions for medical insurance premiums and medical care	31,830	31,055
Related item:		
Deductibility of medical expenses	3,150	1,960
Subtotal: health	34,980	33,015

Table 1 continued

Social Security:		
Exclusion of social security benefits:		
OASI benefits for retired workers	14,285	13,470
Related items:		
Benefits for dependents and survivors	3,025	2,850
Disability insurance benefits	1,170	1,095
Subtotal: social security	18,480	17,415
Charitable contributions:		
Deductibility of charitable contributions, other than education and health	11,535	9,935
Related items:		
Deductibility of charitable contributions, education	1,270	1,095
Deductibility of charitable contributions, health	1,295	1,115
Subtotal: charitable contributions	14,100	12,145
Total of above items	357,820	236,895
Total of all personal income tax expenditures	400,525	276,755
Total of above items as percentage of all personal income tax expenditures	89.3%	85.6%

*Figures in millions of dollars except where specified. Tax expenditures estimated on outlay equivalent basis. Only items involving tax expenditures in excess of $10 billion or very closely related items are listed.

Source: OMB (1988b; pp. G36-G40), Table G-1.

included in the current tax expenditure lists and that might be regarded as more speculative in nature.[12]

II.1 Specific tax expenditures under an ideal income tax standard

Capital gains

Consider first the tax treatment of capital gains. In both Canada and the U.S., the tax law has departed from the Haig-Simons ideal in a number of

[12]It is impossible to cover all of the current tax expenditure items adequately in this paper. Many of them have been admirably discussed in the literature, however. See, for example, Surrey and McDaniel (1985, pp. 197-205) and, both for conceptual clarification and for guidance to the relevant literature, Bruce (1989). A recent paper by Neubig and Joulfaian (1988) discusses the tax expenditure implications of the recent U.S. tax reform.

respects. To begin with, capital gains have generally been subject to *preferential rates of taxation*, for example through the device of exempting some percentage of capital gains from taxation. The U.S. has recently removed this particular preference, and in Canada the proportion of capital gains that will be included in taxable income is gradually being increased from 50% to 75%. Such policy changes can have a dramatic effect on tax expenditures. As shown in Table 1, the elimination of this tax preference is responsible for the bulk of the dramatic reduction in estimated U.S. tax expenditures between 1987 and 1988.[13]

In addition, capital gains are taxed on a *realization rather than on an accrual basis*, which implies at least the ability to defer tax on capital gains. It implies more than this, however, in a tax system with tax rates that vary over time. Since the realization of capital gains (and losses) is discretionary, they can be timed to coincide with periods in which the taxpayer is facing low marginal tax rates (or high marginal rates in the case of losses). Suppose, for example, that taxpayers move through a series of marginal rate brackets as they pass through the life cycle, typically facing successively higher marginal rates until retirement, whereupon they face lower rates. It is easy to see that they can benefit by realizing losses at the peak of the earnings and marginal rate cycle, and by realizing gains during retirement.[14] Yet another benefit accorded capital gains in the U.S. is the *step-up in basis at death*. When a taxpayer dies prior to the realization of capital gains on some assets, the heirs who receive those assets establish a new basis in them equal to their value at the time of death. Although the value of the assets transferred is subject to estate taxation, the accrued but unrealized capital gains are never subjected to income tax. In Canada, the situation is somewhat different: while capital gains are taxed at death, there is a lifetime exemption of $100,000 of capital gains income (or more, depending on the type of property involved). This, too, is a substantial benefit.[15]

The taxation of capital gains does not just provide extra benefits for recipients of this type of capital income as compared with Haig-Simons

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[13]It should be remembered that the possibility always exists that this tax preference will be reinstated. The Bush Administration has recently suggested that this ought to be done in the U.S.

[14]Subject of course to many subsidiary considerations having to do with maximum allowable losses, offsets against ordinary income, minimum tax, etc., which need not concern us here. See Stiglitz (1983, 1985) for discussion of still other ways that capital gains taxation can be exploited for tax avoidance purposes. It could be argued that discretionary timing of capital gains realizations allows more effective averaging of income by taxpayers and that this is not a departure from comprehensive income taxation principles. This issue is taken up further in the following discussion of pension income.

[15]As shown in Table 1, there are still further preferences extended to capital gains on owner-occupied housing in the U.S. There is a special provision that allows deferral of *realized* capital gains on housing, provided that the taxpayer buys another house within two years following the sale of a house, and there is also a once-in-a-lifetime exclusion from taxation of a substantial amount of capital gains on owner-occupied housing.

comprehensive income. It also can impose extra burdens. There are two reasons why this is the case. First, in an inflationary economy, the taxation of nominal capital gains entails a departure from ideal comprehensive income taxation since only real income ought to be included in the tax base.[16] Second, in a tax regime with a progressive rate structure, the realization-basis taxation of capital gains can create some disadvantages to taxpayers that may partially or completely offset the advantages noted above. Since realization-basis taxation bunches the capital gains that have accrued over time into a single tax year (the year of realization), large realized capital gains can potentially push the taxpayer into a higher rate bracket and entail heavier taxation than would have been the case had the gains been spread over several years.

In U.S. tax expenditure accounts, the preferential rate of taxation on capital gains and the step-up in basis at death are both treated as tax expenditures. The first of these provisions entailed a tax expenditure amounting to $97 billion in 1987, the second, $9 billion — large numbers in absolute terms and also relative to the total of all tax expenditures, the Federal deficit, etc. However, the other special aspects of the tax treatment of capital gains mentioned above, such as the benefits from deferral or the losses from the failure to index capital gains, are not estimated at all in the tax expenditure budget.

As noted, the preferential effective tax rate on capital gains is now being phased out as a result of the recent tax reform. Thus, the tax expenditure estimate from this provision drops dramatically for the years 1988 and onwards. This has a significant impact on the estimate of total tax expenditures of all kinds, as is clear from Table 1. However, the elimination of this tax expenditure will evidently not bring the taxation of capital gains fully into line with the Haig-Simons criterion. Aside from special treatment of bequests and of housing (which will continue to be reported as tax expenditures), the deferral, tax arbitrage/progressivity, and indexation issues are still unresolved. These latter items make no appearance in the tax expenditure accounts, because the personal standard that is used does not follow Haig-Simons principles with respect to them.

Private pensions

Like the Canadian income tax system, the U.S. personal income tax structure departs from Haig-Simons comprehensive income taxation in its treatment of retirement plans for workers. There are several ways that working age individuals can provide for retirement: they can save on personal account, they can participate in pension systems through their employers, and they can rely on public pension benefits. Leaving aside public pension programs for the moment, let us ask how private provision for retirement would be handled under a comprehensive income tax, and how this compares with actual practice.

Under a comprehensive income tax, retirement savings on personal account would be treated identically to any other form of personal savings. That is, no special deductions would be allowed for savings in the year that the savings were undertaken, all real returns to savings would be taxed on an

[16]Of course, the failure to index for inflation is not a problem that is unique to capital gains taxation, since capital income generally is unindexed. This issue is discussed again later in this section.

accrual basis from then onward, and the act of withdrawal of the savings at retirement would not occasion any special tax liability. The same would be true of savings made through the medium of the employment relationship. If workers choose to receive some of their employment compensation in the form of pension fund contributions, or, saying the same thing in a slightly different way, if the workers choose to use their employers as financial intermediaries through which to invest their retirement savings, nothing essential changes, from the Haig-Simons viewpoint, compared with the case where they save on personal account. The pension contribution on an employee's behalf should be treated like ordinary income in the year in which the contribution is made, the return on the contribution should be taxed annually, and the distribution of the pension benefits at retirement should not be subject to taxation.

Actual practice in the U.S. and Canada has been just about exactly the reverse of this. When pension fund contributions are made, the contribution is not treated as income received by the employee. The return that the pension fund receives is exempt from tax. The distributions that workers receive are included in taxable income. Keogh plans were introduced to provide similar options to the self-employed, who can channel some of their saving on personal account through these plans and thus obtain immediate deduction of savings from taxable income, exclusion of the return on the savings, and taxation of payouts at retirement. More recently, individual retirement accounts (IRAs) were introduced, which allow all taxpayers with some earned income, even those not self-employed, to shelter some of their retirement savings. These operate in essentially the same way as the Registered Retirement Savings Plans (RRSPs) in Canada.

These features of the tax law provide tax preferences for retirement savings as compared with the treatment of other types of investments. These preferences arise in two ways. The first is that taxation of income received in the form of pension contributions is deferred until retirement; this deferral is, in itself, of real value to the taxpayer. The second preference arises from the fact that the deferral of taxation offers the opportunity for a taxpayer to engage in intertemporal tax arbitrage in the face of marginal tax rates that vary with income (due to progressivity of the rate structure) and over time (due to changes in the rate structure over time).

To see the nature of these preferences, imagine a household that is ten years from retirement, and that has an investment opportunity that will yield a 100% before-tax return over the ten year period. Suppose first that the income tax is imposed at a flat 30% rate at all times. If the household receives $100 of income this year, and this income is treated as ordinary income, then a tax of $30 will be paid now. If the remaining $70 is invested until retirement on personal account, it will earn a before-tax return of $70, of which $21 will be paid in taxes. The remaining $49 will be left after-tax, so that upon retirement the household will have an asset worth $70 + $49 = $119, which can then be drawn down and consumed with no further tax liability. The $70 that could have been consumed now will provide 70% more consumption if invested and held until retirement — that is, the effective return on investment is reduced by 30%, the taxpayer's marginal tax rate.

Now suppose that the household can put the $100 of current earnings into a pension fund, IRA, or RRSP. This will entail a loss of $70 of consumption now, as before. But the full $100 is invested, earning a before-tax return of $100 by the date of retirement. Upon withdrawing the $200 in this fund at retirement, the taxpayer becomes liable for a tax of $60, that is, the amount

distributed from the fund is taxed at the taxpayer's marginal rate in the retirement period. This means that $140 will be left after-tax for the retirement consumption, a full 100% return on the initial sacrifice of $70 of consumption, as compared with the 70% that would be earned if the saving were done on personal account other than through a special retirement account.

This preference can be magnified or reduced when tax rates change either over the life cycle or over time as a result of legislated changes in the rate structure. With a progressive rate structure that is fixed over time, a typical life cycle income profile would put those contributing to retirement funds in high marginal rate brackets, and those receiving distributions in relatively low marginal rate brackets. Thus, pension funds and IRA — RRSP accounts offer an opportunity for taxpayers to engage in tax arbitrage over the life cycle, moving taxable income from the high-marginal-rate working years to the low-marginal-rate retirement years. With a rate structure that varies over time, there is again the opportunity for tax arbitrage. For example, suppose that top-end marginal rates are falling over time (which certainly has been the case in the U.S. for many years). Imagine a high-income taxpayer who will be in high marginal rate brackets both during the working years *and* during retirement. Such a taxpayer will obviously benefit from the change in the rate structure over time. This benefit might be anticipated by the taxpayer or it might be unanticipated, but in any case it will provide real tax savings.

It might be noted here that such tax arbitrage could be interpreted as simply a form of income-averaging over the life cycle, rather than as a departure from comprehensive income that provides a tax preference for pension income. This is quite an important issue for tax expenditure analysis, of course, since it fundamentally concerns the determination of the reference tax standard. Of course, averaging is usually justified as a way of offsetting tax disadvantages for taxpayers with unstable income when the rate structure is progressive.[17] It is true that the current tax treatment of pensions does indeed offer this advantage, at least when the income "instability" in question is the rather predictable life cycle variation in earnings that is associated with retirement. The taxation of capital gains on a realization rather than accrual basis also can be used, as noted earlier, to change the timing of taxable income in a way that might facilitate averaging.[18] However, it must also be recognized that realization-basis taxation of capital gains and the deferred taxation of pension benefits do move the tax base towards a consumption tax and away from what is normally understood by a comprehensive income tax. (This is obvious if one thinks of the operation of a strictly proportional income tax with the same marginal rate in all periods. In such a regime, postponement of the realization of capital gains and the deferral of compensation through pensions would still be advantageous to taxpayers even though there would be no averaging function

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[17]See, i.e., Vickrey (1947) and Simons (1938), quoted below.

[18]Indeed, it is interesting to note that Simons (1938, p. 169) wrote in this regard that "it is a great merit of [taxation of realized gains] that it mitigates the penalty of progression upon irregularity and enables the taxpayer to level out fluctuations in his annual taxable income. Full application of accrual procedures ... would serve greatly to increase the fluctuations and, thus, would call for generous and complicated devices of averaging".

for these devices to perform.) It is unclear how far Simons, or any other comprehensive income tax advocate, would be willing to trade off the desirable averaging features of realization-basis taxation of capital gains or of deferral of taxation of pension benefits against the presumably undesirable erosion of the capital income component of the comprehensive income tax base. One could of course define income over the life cycle rather than annual income as the proper base for comprehensive income taxation.[19] I shall assume for the purposes of this paper, however, that "comprehensive income" means income as computed on an annual basis or close to it. This seems to be a more or less conventional definition.[20]

If we agree, then, that the treatment of pensions is inconsistent with Haig-Simons principles, there should presumably be some appropriate entry made in the tax expenditure accounts. How should this be done? The practice adopted in both the U.S. and Canada is the following: each year, determine the total amount of pension (and IRA, RRSP, etc.) contributions that are made without prior taxation as part of ordinary income and calculate the amount of tax revenue forgone as a result. Determine the total amount of taxable distributions to retirees in the same year, and calculate the amount of tax collected thereon. The difference between the revenue forgone and the revenue collected is the estimated tax expenditure for the given year.[21]

This procedure is not totally satisfactory. It does not reflect the present value of the tax deferral that the taxpayer receives (see Rea, 1980). In a crude way, it does capture the effect of varying tax rates over the life cycle, since the rates applicable to the working and retired populations in the given year are used in the computations. The procedure obviously misses the impact of changes in the rate structure over time. But most importantly, it offsets the deductions of workers in a given year by the distributions to retirees in the same year, thus mixing together the impact on quite different groups of people. To see why this would lead to misleading estimates, imagine an economy in a stationary equilibrium, with population, wages, pension contributions and distributions, and tax rates unchanging over time. Imagine also that the tax rate structure is flat. Then, if the pension plans are actuarially fair, the flow of contributions will be less than the flow of distributions each year by the amount of interest and other returns on capital received by beneficiaries. The value of taxes forgone on the contributions will be less than the value of taxes paid on the distributions, so there will be an estimated tax penalty or negative tax expenditure. Yet each household continues to benefit from the value of the tax deferral so a proper accounting should actually show a *positive* tax expenditure. Computation of the present value of the tax savings due to deferral would seem to be

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[19]A recent proposal along these lines can be found, for instance, in Economic Council of Canada (1987).

[20]It is of interest, in the tax expenditure context, to note that the recent U.S. tax reform eliminated explicit averaging from the tax structure.

[21]See Department of Finance (1985, pp. 32-33) for a discussion of past and present practice in this area in Canada.

necessary in a case like this if one is to capture a real tax expenditure which would otherwise go undetected.[22]

While present value calculations might be preferable to tax expenditure estimates based on current pension contributions and distributions, it must be admitted that there are not only practical difficulties involved in doing so, but also some potential conceptual problems. These arise because of the uncertain property rights that pensions offer to employees, and because of the methods by which pensions are sometimes funded, or, more precisely, not funded.

First, under most pension plans, a worker must be attached to a firm for some period of time before becoming eligible for pension benefits upon retirement. By the same token, a worker who leaves employment with a particular firm prior to retirement (i.e., because of a desire to change employers) may thereby sacrifice his pension benefit rights. This means that the contributions made by the employer on the worker's behalf are not really owned by (vested in) the worker. It is thus incorrect, by Haig-Simons standards (accretion of property rights) to treat the full amount of the employer contribution as part of the worker's income. In effect, the contribution is a form of contingent compensation to the employee, which must be worth less to the employee than a guaranteed form of compensation.

Second, pension benefits are sometimes promised to workers without provision being made at the time for the funding of the promised benefits. This is frequently done in the U.S. in the case of employees of state and local governments, whose unfunded pension liabilities are estimated to be quite substantial (see Inman, 1981, 1982 and Epple and Schipper, 1981). In this case, the flow of contributions into the pension funds is insufficient to build up reserves to meet future obligations. It is therefore at least debatable whether or not the promise to pay future pension benefits should be included in comprehensive income, even in principle, or if they are included, to what extent they should be discounted. Note here that the underlying difficulty is that of determining what comprehensive income itself actually is, not how to measure tax expenditures *per se*. The latter is a problem that cannot be clearly analyzed before the former is resolved.

Employer contributions for health insurance and other fringe benefits

In discussing pension contributions we have already dealt with one of the most obvious and important fringe benefits. Insofar as employer contributions to pensions are taxed upon distribution to retirees, however, their tax treatment is somewhat different from that of certain other fringes. Employer

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[22]Salisbury (1984) observes that estimated tax expenditures will be overstated during a period, such as the past several decades, in which pension plan participation and contribution levels have been growing. Salisbury also suggests that the current working generation will tend to have higher incomes over the life cycle, and will thus face higher marginal tax rates in retirement than current retirees. This would also tend to overstate tax expenditures. Trends in the marginal rate structure over time make the assumption of rising rates a rather speculative one, however, and if anything one might wish to assume the opposite: workers retiring now may face marginal rates that are lower than would have been the case under the rate structures that they faced in the working years.

contributions to health insurance provide a leading example in the U.S. The income that these insurance contributions represent may never be, and typically is not, subject to taxation.[23] Canadian practice is significantly different in this regard, since employer health contributions are treated as part of taxable compensation.

Many other forms of fringe benefits also receive favourable tax treatment. These benefits take a variety of forms, and it is difficult to know what their total magnitude might be. Some of them are rather obvious — a company car that can be used for non-business purposes, for example. Others are less obvious. For example, consider the "benefit" of working in a safer, cleaner, more comfortable environment. Employers can and do provide such benefits by making many different kinds of outlays (safety equipment, environmental controls such as air conditioning, and so on). These outlays make employees better off, and although some may be productivity-enhancing it seems clear that many involve a component of in-kind income. Indeed, labour economists have gone to considerable lengths to model and estimate compensating wage differentials, and have generally concluded that occupations that are more risky and less pleasant tend to pay higher pecuniary incomes, other things the same — which is to say that safer and more pleasant jobs offer non-pecuniary income.[24]

Since fringe benefits are real income, the failure to tax them should be included in estimates of tax expenditures. There are of course quite obvious practical problems involved in doing so. Nonetheless, the failure to tax fringes should be recorded as a tax expenditure, or, alternatively, the imposition of tax on pecuniary wage premia that reflect compensating wage differentials should be recorded as tax penalties.

Public pensions

For many households, social security benefits are a main source of income in retirement, and contributions to the social insurance program are required of virtually all workers and employers. Under current U.S. income tax policy, up to one-half of social security benefits are included in the taxable income of retirees. The social security contributions that employers make "on behalf" of their employees (i.e., that match the employee contributions) are not included in the taxable income of workers. The contributions that employees make are not deductible, for personal income tax purposes, in determining taxable income. Self-employed individuals pay a self-employment tax at a rate intermediate between that of the employer/employee rate itself and the combined rate. This is calculated and paid at the time of filing for the individual income tax, but is reported as a separate tax on the tax return. No income tax deduction is permitted on account of the self-employment tax. Canadian tax treatment of social security contributions and benefits differs significantly from that in the U.S. Both before and after the recent tax

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[23]This presumes that one treats income *gross* of medical expenses as the proper income standard for tax expenditure purposes. If instead one takes income *net* of medical expenses as a standard (on the grounds that it is a superior measure of ability to pay) then health insurance premiums (or the payout of health insurance benefits) do not constitute income and their exclusion from the tax base does not represent a tax expenditure.

[24]See, i.e., Rosen (1986) and references therein.

reform, social security benefits paid to retirees were fully taxable. Prior to the tax reform, both employees and employers were allowed to deduct their respective contributions in determining taxable income. Since the reform, the individual deduction has been replaced by a credit for contributions (calculated at the minimum marginal personal tax rate).

The U.S. tax expenditure accounts record the failure to tax the full amount of social security benefits as a tax expenditure. The rationale for doing so, of course, is that these transfer payments are part of comprehensive income.[25] The 1985 Canadian accounts treat Canada Pension Plan and Quebec Pension Plan benefits as properly included in taxable income, and the deductions as properly deductible; hence no tax expenditures or penalties appear in the accounts. However, there is some uncertainty about whether the CPP and QPP contributions should be deducted (see Department of Finance, 1985, p. 21) and the deductions are listed as memorandum items. In view of the size of public pension programs in both the U.S. and Canada, their treatment for tax expenditure purposes is an important issue. What is the proper procedure? The answer depends on how one views the social security program.

Suppose first that we consider the social security system as a form of mandatory pension program, which requires contributions both from workers and from their employers, and which pays benefits to retirees. If such a system were operated privately, one would regard both the employer and the employee contributions as uses of income earned by the workers. Haig-Simons treatment of this income would require that these earnings, and any subsequent return on investment, be subject to tax in the year earned. If this were done, the payout of benefits in retirement would not occasion any new tax liability. Current U.S. policy corresponds to this principle in that workers are not allowed to deduct their social security contributions in determining taxable income. On the other hand, employer contributions are not included in the taxpayer's income for personal income tax purposes as they would have to be under this approach. Indeed, current U.S. tax treatment of social security contributions is not unlike the treatment of private retirement savings: worker contributions are generally not tax-favoured, but employer contributions do not have to be included in the income of workers in the year in which the contributions are made (subject of course to various limits and exceptions). By analogy with the tax treatment of private pensions, the failure to tax employer contributions should presumably be offset by taxation of the distributions upon retirement. In a rough sense, the U.S. tax structure does this, in that half of social security benefits above a certain threshold are subject to tax.

Since the personal income tax treatment of social security contributions and benefits more or less corresponds with the treatment of private retirement savings, tax expenditure accounting should presumably also be done on a comparable basis. Since workers are not allowed a deduction from income when they make their social security contributions, the benefits that they receive in retirement corresponding to these contributions should not be subject to tax. By this standard, the U.S. tax expenditure accounts err by recording as a tax expenditure the failure to tax one-half of social security benefits. On the other hand, since workers do not report employer contributions as taxable income, there is a tax expenditure on this account. By analogy to private

[25]See, i.e., Surrey and McDaniel (1985, pp. 202-205).

pensions, then, the "correct" estimate of tax expenditures arising from the social security system would be equal to the employer contributions made in a given year times the applicable marginal tax rates of the workers, minus one-half the social security benefits received by retirees times their marginal tax rates. This is quite different from current procedure, but it seems to follow logically from the view that the social security system should be regarded as a pension program.[26]

The above remarks are based on the idea that the social security program is like a private pension program, and that one should determine tax expenditures connected with this program in the same way that one would do with private pensions. Few are likely to favour this general approach, however, because of (at least) two crucial differences between the social security system and private pensions. First, the social insurance "contributions" made both by employers and by employees are involuntary. Presumably these contributions would be smaller in magnitude if they were determined on a voluntary basis. This means that they are worth less to workers than equal dollar amounts of other income, unlike the presumption that one would maintain in the case of private pension contributions. Indeed, a worker might even regard these "contributions" as worthless, in which case it would be appropriate to refer to them, as is in fact often done, as a "tax". Second, because the social insurance system is operated on a substantially underfunded basis, it is more accurately characterized as a type of transfer system than as a retirement savings plan: the current working generation pays taxes not to build up savings which it can draw down in retirement, but which are paid out as benefits to the *current* retired generation.

If one chooses to characterize the social security program as a tax-transfer system, however, one must ask what the appropriate personal income tax treatment of social security "contributions" — i.e., taxes — and benefits would be. The first issue that must be resolved is whether we wish to consider it independently of the personal income tax structure or on some integrated basis. Since current tax expenditure accounting does not integrate the two, let us provisionally proceed on that basis.[27]

According to the tax-transfer view of the system, the taxable income of workers who pay social security taxes should be reduced by the amount of the taxes that they pay, since these taxes reduce their real income. Also, the entirety of social security benefits should be regarded as part of a household's comprehensive income, and they should be fully subject to tax. Pre-reform Canadian policy was consistent with this view, since it did allow deductions for contributions while taxing benefits fully. The post-reform policy, by allowing only limited tax credits for social security taxes, deviates from this standard and now overstates taxable income somewhat. Current (and longstanding) U.S. tax policy allows neither deductions nor credits for employee social security tax payments, thus overstating taxable

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[26]Let us hasten to note that this is not really a "correct" way to calculate the tax expenditure in this situation. It is simply a description of how one could do tax expenditure accounting for public pensions in a way that mimics what is currently done with respect to private pensions. The imperfections of the latter technique have already been discussed, and that discussion is equally applicable to the same technique if used in connection with public pensions.

[27]This question will be taken up again in section III.

income from the tax-transfer perspective, while failing to tax benefits fully. From this tax-transfer viewpoint, then, the net U.S. tax expenditure arising from the social security system would equal the forgone tax on some social security benefits less the extra revenue that is collected from excess taxation of wage income. Compared with this, current practice overstates the tax expenditure associated with the social security system. In the Canadian case, the shift to a crediting arrangement for contributions has created a tax penalty for upper-bracket taxpayers where none existed before.

Other transfers and benefits from public expenditure; state and local tax deductibility

If social security benefits are to be regarded as part of comprehensive income, so presumably should other transfer payments such as income support for the poor. The same would be true of in-kind benefits from public programs, such as food stamps, health insurance, or housing subsidies. Carrying this idea further, special discounts on public transportation for the elderly or disabled could be regarded as income; for that matter, all users of public transportation benefit from fares that are subsidized in the sense that the transportation services operate at a loss. Should these subsidies be included in income as well? If so, the idea can be carried further still to include the benefits of virtually all public services.

There appears to be a real dilemma here as to how far to carry this logic. Surrey and McDaniel (1985, p. 205) write that "it is difficult to draw a distinction between appropriately nontaxable in-kind general public benefits and appropriately taxable in-kind benefits. ... An in-kind benefit program targeted to a specific group, such as poverty-level individuals, should be included in income. ... The provision of general government services — public education, police, and so on — is not considered a part of taxable income." While this seems quite reasonable, one nevertheless has the suspicion that some groups may simply be more adept at clothing their particular transfer payments in the cloak of the "general public interest"; this is perhaps more difficult to do with transfers for the poor than with programs, such as subsidized higher education, that benefit higher income households.

It is indeed very difficult to evaluate the benefits or income that accrue to households as a result of many government programs. The tax expenditure accounting for state and local government taxes is instructive in this regard. In the United States, some state and local taxes are tax-deductible expenses in determining taxable income for the Federal income tax. This would correspond to Haig-Simons principles if these taxes were not seen as providing benefits to taxpayers of comparable magnitude. On the other hand, the tax expenditure accounts have treated these deductions as tax expenditures, which is appropriate if the state and local taxes are seen simply as a use of income — that is, the expenditure of income by households on the goods and services provided by state and local governments. Thus, current tax expenditure accounting procedures in effect impute income to households from state and local government services equal to the outlays on them. In Canada, provincial taxes are not deductible at the Federal level, which again amounts to an imputation of income to households equal to the amount of provincial taxes paid. Accordingly, no tax expenditure items associated with provincial taxation appear in the Canadian accounts.

Human capital

As we have seen, the tax treatment of capital income gives rise to some of the most important tax expenditures that appear in the U.S. tax expenditure documents. Another very important form of capital investment is investment in human capital. Current tax treatment of human capital, both in the U.S. and Canada, departs greatly from the Haig-Simons ideal, although this departure from the comprehensive income tax has not been captured in the tax expenditure accounts.[28]

The nature of the deviation from the comprehensive income tax standard is easily seen if we consider the case of education. Imagine a student who decides to undertake several years of undergraduate education. Like any investment decision, such education entails immediate expenditures and future returns. The expenditures involved are partly out-of-pocket outlays for tuition, books, and so on. They are also partly implicit, taking the form of forgone earnings that result from the partial or total withdrawal of the student from the labour market, during the time the education is under way. The returns, of course, partly take the form of higher earnings later on.[29]

When earnings are reduced because of investment in human capital, taxable income falls by an equal amount. This is equivalent to allowing immediate write-off or expensing of investments in human capital, in contrast to the gradual write-off of investment in non-human capital through ordinary tax depreciation. Thus, compared with a true comprehensive income tax, the tax system provides favourable tax treatment to investment in human capital through highly accelerated depreciation. Current tax expenditure analyses do not, however, report this acceleration as a type of tax expenditure.

Income in kind

Both the U.S. and Canadian tax systems exempt a substantial amount of income-in-kind from taxation. We have already mentioned the case of untaxed fringe benefits, which provides one example of this. Another very important example is the failure to tax the imputed net rental income from owner-occupied housing and other durable goods. The forgone revenue from the exemption of this type of income should, in principle, be included in tax expenditure accounts that are based on comprehensive income. The obvious difficulty in doing so is that it is difficult to estimate the value of this net income. As a consequence, neither the U.S. nor the Canadian tax expenditure accounts have included any estimates of lost revenue from exclusion of

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[28]See Davies and St. Hilaire (1987) for a thorough discussion of the taxation of human capital under comprehensive income taxation, wage taxation and consumption taxation.

[29]The term "earnings" here should be interpreted in its most comprehensive sense, to include the non-pecuniary components of employment compensation. In the case of higher education, these components might include such dimensions as more healthful, comfortable and stimulating employment. The failure to tax these components properly is really just one dimension of the fringe benefit problem, which we have already discussed. This particular aspect of the human capital formation problem will not be explicitly discussed any further here, but should be kept in mind.

these forms of income-in-kind.[30] In the U.S., mortgage interest expense is tax-deductible, and this tax deduction is included as a tax expenditure.

Deductions, credits, and exemptions

The personal income tax systems of both the U.S. and Canada have traditionally allowed for certain deductions, credits, and exemptions in the calculation of taxable income. A number of the deductions are designed to move income from a gross to a net basis — the U.S., for example, has generally allowed deductions for employee business expenses or for interest expenses incurred in generating investment income. Deductions of this sort clearly are consistent with the concept of comprehensive income, and should not be counted as tax expenditures. Rather, any failure to allow deductions for expenses incurred for income-producing activities ought to be counted as a tax penalty. (Of course, these deductions might be undesirable on other grounds, such as tax complexity and record-keeping difficulties, opportunities for abuse, and so on.)

The rationale for other types of deductions, and the choice between deductions and credits, is often less clear. We have already discussed the question of tax deductibility for other types of taxes (i.e., payroll taxes) or for income taxes imposed by other levels of government. Flat per capita exemptions are permitted for a certain amount of income in both the U.S. and Canada (aggregated across family members, in the U.S., where the family is often the taxpaying unit). Tax deductions are allowed for charitable contributions in the U.S., although recent policy has vacillated on the question of whether these deductions are to be generally available, or are to be allowed only for itemizers. Canada has recently switched from deductions to credits for charitable donations. Deductions have also been allowed, both in Canada and the U.S., for medical expenses of sufficiently great magnitude, with Canada again switching to a credit system in the recent tax reform. In the U.S., uninsured (non-medical) losses (due to theft, various kinds of disasters) are tax-deductible.

In general, deductions are called for when a tax allowance is needed to arrive at an accurate assessment of income, i.e., to determine the proper tax base for a taxpayer. The main difference between credits and deductions is that credits offer a tax reduction at the same percentage rate for all taxpayers, whereas a deduction reduces taxes at a rate equal to the taxpayer's marginal tax rate which typically (though not invariably, as in the U.S. at present) would be higher for higher-income taxpayers. If the tax allowance is regarded as an implicit subsidy for the activity in question, then a credit arrangement might be more equitable than a deduction. However, if the allowance is considered necessary to determine the proper tax base, a deduction is called for.

In the case of charitable contributions, the issue is basically whether or not such contributions constitute a use of income by the taxpayer or whether they represent a pure transfer of income from the taxpayer to the donee. Given the discretionary nature of these contributions, one might be

[30]It should be noted, however, that the imputed rent on owner-occupied housing is regularly included in GNP accounts. Thus, at least at a high level of aggregation, the measurement problems need not be regarded as insuperable.

inclined to treat them as a use of income, rather like an ordinary consumption outlay, in which case no deduction should be allowed. Under this view of charitable donations, the taxes forgone by the government on account of the tax deduction would be considered a tax expenditure. This in fact is the treatment they are given in current U.S. tax expenditure accounts. It has often been proposed that the deduction for charitable contributions be replaced by a tax credit, and Canada has recently implemented such a crediting system. This has the effect of changing the implicit tax subsidy to the charitable activity from the marginal tax rate of the individual taxpayer to a rate that is uniform across taxpayers. Such a reform might be attractive on equity grounds. In any event, from the viewpoint of tax expenditure accounting, the value of such credits should still be considered a tax expenditure.

It is perhaps more plausible to argue that medical expenditures do not represent a flow of real consumption services of the same type as ordinary consumption, and that they should therefore not be included in the tax base. Typically, an allowance would only be made for uninsured expenses. The justification for a medical expense deduction or credit is not completely clear-cut, however. It has been argued above that employer-provided health insurance premiums are properly included in the tax base. One can interpret these premiums as pre-payments of expected medical expenses. Symmetrically, then, it could be argued that uninsured medical expenses should not be treated as tax deductible, since they simply constitute a bunching of expenses that insured taxpayers have incurred, with no tax allowance, over a longer period of time. Of course, this reasoning ignores certain problems. For example, some losses may not be insurable (because of moral hazard or adverse selection problems that induce insurers to limit or deny insurance altogether for certain risks). Thus, there remains some case for tax relief on account of unusual medical expenses. The choice between deductions and credits seems somewhat ambiguous. As far as tax expenditure accounting is concerned, it could be maintained that the deduction or credit is really an attempt to measure the base more accurately, and if so, the case for including the allowance as a tax expenditure is relatively weak.

In the case of uninsured casualty and theft losses, the justification for allowing a deduction is perhaps more clear-cut, since they represent a reduction in the taxpayer's stock of wealth. Credits could be offered for such items, but this is inappropriate from the comprehensive tax standpoint.

Finally, a general exemption of a certain amount of income amounts to the imposition of a zero marginal tax rate on low levels of income, and could just as well be incorporated into the explicit tax rate structure. An exemption is sometimes justified on the grounds that a certain base level of income is needed to meet the necessities of life, which makes the exemption appear to be part of the definition of the tax base. As such, it does not conflict with comprehensive income tax principles. However, this reasoning is close to indistinguishable from the claim that a zero marginal rate at the bottom of the income distribution is desirable for equity reasons. In either case, exemptions would not be properly treated as tax expenditures except insofar as some allowance might be made in the tax expenditure accounts for tax rates. This issue is discussed in the next section of this paper.

II.2 The income tax standard: some preliminary conclusions

The forgoing discussion has only touched on a few of many specific questions concerning tax expenditure accounting for the personal income tax when

Haig-Simons comprehensive income is considered as the standard or reference tax structure. Despite its incompleteness, this discussion has illustrated some important points. First, the personal income tax in both the U.S. and Canada, like the income taxes of other countries over long periods of time, differs from the Haig-Simons ideal of comprehensive income taxation in significant respects. Second, the standard that has been used in practice for tax expenditure accounting also differs from the comprehensive income tax, and in a variety of ways. It appears to depart from the comprehensive income tax not because of any new principles of taxation that are held up as serious alternatives to the Haig-Simons standard, but because of technical and political constraints.

The fact that the tax expenditure standard does not correspond to Haig-Simons comprehensive income makes the interpretation of tax expenditure estimates somewhat problematic, especially for those who find comprehensive income taxation appealing. The problem is that the elimination of tax expenditures, when measured by this standard, need not represent an "improvement" in the tax structure, in the sense of bringing the system closer to the comprehensive income tax ideal.

For example, let us take it as given, for the moment, that capital income is not to be indexed for inflation, whether it be in the form of capital gains, interest, or dividends. The currently-used modified comprehensive income standard for tax expenditure analysis also assumes that capital income is not to be indexed. Consider now some tax preference that is extended to capital income — for example, the preferential tax rate on capital gains. From the viewpoint of comprehensive income taxation, is such a preference good or bad policy? Obviously, in a world with stable prices, this would constitute a deviation from the proper taxation of capital gains.[31] But we typically see more or less rapid inflation in practice, and we must remember that the basic objective of the comprehensive income tax is to bring individual income tax liabilities into line with real income. By offsetting the tax penalty associated with the failure to index capital gains income, a preferential rate might actually bring the distribution of tax burdens *closer* into line with comprehensive income than would be true if capital gains were taxed at ordinary rates.[32]

The difficulty that this creates for tax expenditure analysis is obvious. It does not seem useful to identify preferential rates as a deviation

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[31]Except insofar as the preferential rate is seen as a device for partial integration of the personal and corporate tax structures. To abstract from these considerations, think for the moment of capital gains on assets other than corporate stock.

[32]Of course, offering preferential rates is a highly unsatisfactory mechanism for dealing with inflation. On the general issue of indexation, see, i.e., Halperin and Steuerle (1988). These authors state that "almost all forms of capital income receive some form of special treatment or ad hoc indexing under current law" (p. 356). This is a revealing statement in the present context, in that it is indicative of a perception that many of the tax preferences enjoyed by capital income are simply *ad hoc* forms of dealing with the failure to index.

from the tax expenditure standard or reference tax if these deviations improve the equity and efficiency of the tax structure relative to a much more interesting and appealing standard, that of comprehensive income taxation.[33]

Similar difficulties can arise in many other areas of tax policy. For example, one could include any number of tax preferences for capital income under the heading of offsets to inflation or of tax bias in favour of human capital investment. Why would it be appropriate for tax expenditure accounts to single out these particular deviations (the preferences, that is) from the Haig-Simons standard, while not identifying the other deviations, such as failure to index, that these preferences might help to correct? It might be argued, of course, that these tax preferences were not introduced for the purpose of offsetting defects in the tax structure with respect to inflation or human capital, and that therefore they should be regarded as tax expenditures.[34] However, introducing legislative intent into the problem of determining the tax expenditure standard seems fraught with problems. After all, presumably all items in the tax law are there because of "legislative intent", in the sense that the law was passed. Since the law is not explicitly described as a comprehensive income tax, one could argue that it was never intended to be a comprehensive income tax, and therefore that the use of comprehensive income or any reasonable variant thereof for tax expenditure analysis is inappropriate because it is inconsistent with legislative intent. Such a line of reasoning undermines the whole tax expenditure enterprise, which of necessity involves the introduction of standards of taxation that differ in some degree from the actual tax policy that happens to be in force.

We can conclude that the personal income tax standard for tax expenditure analysis fails in practice to adhere to a reasonably strictly-defined standard, such as Haig-Simons comprehensive income. As a consequence, the tax expenditure accounts are to some extent being constructed in an *ad hoc* manner, which limits their usefulness. To correct this problem, one could try to establish a more pure or ideal standard for tax expenditure estimation. As is no doubt already clear, there are severe practical problems involved in

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[33]As Break (1985, pp. 264-265) notes, "some items that look like structural anomalies when viewed separately ... are really structural accommodations when viewed in relation to other required structural features of the income tax. ... [T]hese ... structural accommodations ... should not be classified as tax expenditures to the extent that they serve to offset distortions created by other basic structural features of the tax law."

[34]Note, in this regard, an interesting publication of the U.S. Senate Committee on the Budget (1986). For each of 129 tax expenditures, it provides basic descriptive information about what the tax expenditure is, its magnitude, and so on. Frequently included in the description are a few words about the legislative history of the item in question. In the case of accelerated depreciation of investment expenditures, it is noted that "[t]he real value of depreciation deductions allowed under prior rules has declined for several years due to successively higher rates of inflation .... The Congress concluded that a new capital cost recovery system was required to provide for more rapid acceleration of cost recovery deductions." (p. 175). Does this justify the interpretation that Congress intended to index tax depreciation, however imperfectly? If yes, can we then infer that other tax preferences for capital are also inflation offsets?

doing so. Perhaps this provides all the more reason to be very explicit about the deviations between, on the one hand, the "best feasible" income tax standard that has been the basis of tax expenditure accounting in practice in the U.S. and other countries and, on the other hand, the ideal comprehensive income tax structure that ultimately underlies the whole exercise. By highlighting the imperfections inherent in the practical standard, tax expenditure analyses would be more meaningful and less susceptible to misinterpretation and debate at cross-purposes. This would also indirectly draw attention to the fact that the real problem in formulating good tax policy is to choose among *feasible* alternatives, not among ideals. Perhaps the very infeasibility of a true Haig-Simons income tax, and the complexities of the tax law that practical approximations to Haig-Simons inevitably entail, deserve more emphasis than they customarily receive in discussions of the desirability of comprehensive income taxation as compared with alternative systems of taxation.[35] If tax expenditure analysts find it necessary to incorporate serious deviations from Haig-Simons principles in establishing their accounting standard, then this is itself important information about the practical applicability of these principles. If the tax expenditure budget is reported in a way that clarifies these difficulties, it will better delineate real tax policy options and thus better fulfill its fundamental function of providing valuable information about current tax policy.

III. Alternative standards, tax rate structure, and intertemporal tax timing issues

As noted earlier, there is considerable interest among economists in the possibility of a shift of the tax system away from the income tax and towards a consumption tax. Some discussion of what tax expenditure accounts would look like under the consumption tax standard thus appears in the first subsection of this section. This subsection also discusses the possibility of integrated treatment of the payroll tax and a personal consumption tax, and possibly other consumption-based taxes such as a value-added tax (VAT). Subsection III.2 carries the question of integration somewhat further, and discusses what alternatives there might be to integration in a revenue system with a mix of taxes. Subsection III.3 considers the question of how the rate structure for tax expenditure accounting should be determined, and some related issues having to do with the accounting period for tax expenditures. Finally, subsection III.4 discusses the issues raised by deficits and changes in the intertemporal structure of taxation through reductions in some periods and possible tax increases in others.

III.1 The consumption tax standard

The preceding discussion has assumed that the proper standard for tax expenditure analysis at the personal level is the comprehensive income tax. There are several reasons to question whether this is appropriate, however.

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[35]Bradford (1986) discusses the complexity of the tax law at some length, and shows that resulting inequities and inefficiencies can frequently be traced to the great difficulties involved in taxing capital income in a fashion consistent with the Haig-Simons comprehensive income tax view.

To begin with, as mentioned in section I, it cannot be taken as given that there is general agreement on the desirability of the comprehensive income tax. Many thoughtful and well-informed authors have been advocating the use of a consumption tax for some years now, and while one might or might not find their arguments persuasive, it seems difficult to justify the claim that the comprehensive income tax is the *only* serious candidate for consideration as the standard for tax expenditure analysis.[36] The possibility of using the consumption tax as the standard is enhanced by the fact that the personal income tax contains many elements which in fact correspond to a consumption tax. This is true, for example, of the tax treatment of retirement savings through pension funds and through such preferred savings vehicles as IRAs. Similarly, the failure to tax capital gains as they accrue would be perfectly appropriate under a consumption tax standard. The current income tax treatment of human capital investment — i.e., expensing of the investment outlay (at least the outlays that take the form of forgone earnings) and full taxation of the subsequent return, with no further allowance for depreciation — corresponds to the cash-flow accounting that would be used in a consumption tax regime. The same is true of the tax treatment of owner-occupied housing (and other durable goods), since housing purchases are treated on a "tax pre-paid" basis.[37] Indeed, there are so many ways in which the "income" tax adheres to consumption tax rules that a recent volume on tax policy was titled *Uneasy Compromise: Problems of a Hybrid Income-Consumption Tax.*[38]

Another reason to question the appropriateness of the comprehensive income tax standard appears when one contemplates the totality of government

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[36]The consumption tax is often referred to as an "expenditure tax". The terminology of "tax expenditures" is already somewhat paradoxical. To talk of an "expenditure tax standard for tax expenditure analysis" could become hopelessly confusing, and hence I will adhere to the use of the "consumption tax" terminology.

[37]The purchase of a house is of course partly an act of investment through the purchase of an asset. One way to tax housing under a consumption tax would be to treat the purchase of a house as an act of saving, and to tax only the flow of consumption services derived from the house over time. The problem with doing so is precisely the problem that arises in trying to tax housing under the comprehensive income tax, which is that it is difficult to measure this service flow. As is well known, however, this problem can be obviated by simply treating a house purchase like any other expenditure — i.e., by not allowing a reduction in tax liability for the savings that the purchase represents. No special tax would be imposed on account of any borrowing that is undertaken to finance the purchase of the house, nor would there be any tax reduction in later years as the mortgage is repaid. This method amounts to paying a consumption tax on the value of the entire house in the year of purchase, and omitting any taxation of the flow of consumption services in subsequent years. This is essentially equivalent to current Canadian tax treatment of housing, and differs from U.S. tax treatment only in that the U.S. allows the mortgage interest deduction. This deduction would be eliminated under the consumption tax. See, i.e., Bradford (1984, pp. 108-112) and Boadway *et al.*, pp. 103-106.

[38]See Aaron *et al.* (1988a), and particularly the introduction by Aaron *et al.* (1988b) and the chapter by Andrews and Bradford (1988).

revenue-raising activities. As noted above, the payroll tax for social security has become a huge source of revenue for the Federal government in the U.S. — much more important, quantitatively, than the corporate income tax or any other revenue source other than the personal income tax. Suppose that we agree to regard the social insurance system as a tax-transfer system rather than as a public pension plan. The payroll tax in the U.S. is essentially a proportional tax on labour income (ignoring the upper limit on the amount of taxable earnings). Viewed as a tax on income, it has the property that it exempts capital income from taxation. As such, it can be regarded as strengthening the reliance of the revenue system as a whole on consumption taxation. The same can be said in Canada with respect to the impact of various commodity taxes.

It is beyond the scope of this paper to describe in detail how a tax expenditure budget based on a consumption tax standard would be derived. No doubt there would be a large number of subtle issues to be resolved in such an attempt. Moreover, there are different ways that a consumption tax might be implemented, and different implementations might involve different techniques for measuring tax expenditures. Several general comments are in order, however.

First, it is clear that the list of tax expenditure items would look quite different under a consumption tax standard. Many items on the current list — i.e., tax-exempt interest on state and local government bonds, preferential treatment of pensions, IRAs, and capital gains — would be dropped under the consumption tax standard. Indeed, compared with a consumption tax, the current tax structure puts an excessive burden on capital income, despite all its numerous concessions to such income. The tax expenditure accounts prepared under a consumption tax standard would thus show large tax penalties under the current tax policy regime.

Not all items on the current tax expenditure list would be stricken under a shift to a consumption tax standard, of course. Two large items that would remain are the interest deduction for owner-occupied housing and the failure to include health and life insurance contributions by employers and other fringe benefits in taxable income. It is quite possible that one would still wish to include the deduction for state and local taxes as a tax expenditure under the consumption tax standard, as well as the deductions for charitable contributions. By the same token, some items that do not appear in the current tax expenditure list (but should appear, at least in principle) would again not appear (and now properly so) if the list were based on a consumption tax standard. This would be true, for instance, of the failure under the current tax law to allow indexing of capital income.

Second, there is the question of whether or not the consumption and payroll taxes ought to be treated on an integrated basis with other consumption-type taxes such as the payroll tax, specific commodity taxes, or, if one were implemented, a value-added tax (VAT). Since such taxes are broadly similar in terms of their economic effects, one might be disposed to do so. In the U.S. case, the personal income tax (which for the moment we are considering as a consumption tax) and the payroll tax together account for the bulk (80%) of Federal tax revenue. Tax expenditure accounts that covered both of these taxes would come much closer to providing a comprehensive view of the overall tax system, which is another reason to consider an integrated approach. Let us consider, then, some of the issues that would arise in an analysis of tax expenditures where the payroll tax and the personal consumption tax are

treated on a consolidated basis, and then turn briefly to the treatment of other consumption-type taxes.

In the U.S. context, the most interesting and difficult questions arise in considering how the rate structure and the taxpaying unit for tax expenditure analysis would be determined, given that the payroll and consumption taxes apply to different taxpaying units (workers under the payroll tax, families under the consumption tax) and given that they have different rate structures and exemptions.[39] Practically speaking, however, these problems are largely mitigated by the fact that the payroll tax is essentially a proportional tax. To see what would be involved, imagine that the two taxes were collected simultaneously, under the heading of the "personal consumption tax", rather than separately.[40] According to the Haig-Simons comprehensive income standard, this new consolidated system favours capital income relative to labour income because there is a surtax (amounting to about 15% if we consider the combined employer and employee taxes, as we should) from which capital income is exempt. According to the consumption tax standard, however, this new consolidated system would be closer to the ideal than the current personal income tax precisely because this new system includes a component that exempts capital income from tax.[41] The fact that the payroll tax is proportional obviates the possibility of any tax advantages from income-splitting among family members, so that the difference in the definition of the taxpaying units under each tax is not as important as it might otherwise be. The absence of an exemption under the payroll tax does appear to involve a deviation from the consumption tax standard. The purpose of the exemption under the consumption tax would presumably be to exempt some minimal necessary level of consumption from taxation. A tax penalty could be recorded in the tax expenditure accounts for the failure of the payroll tax to reflect this. Finally, note that social security benefit payments would be treated as fully taxable under the integrated approach. Any deviation from that standard would be treated as a tax expenditure.

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[39]In Canada, the individual is the taxpaying unit for both the income and payroll taxes, so the problems discussed in this paragraph are somewhat unique to the U.S. situation.

[40]As observed earlier, this is actually current practice with regard to the social insurance contributions made by self-employed individuals. This tax, in their case, is called the self-employment tax.

[41]See, i.e., Bradford (1987, pp. 249-251) for a discussion of the similarities and differences between a payroll tax and a consumption tax. Bradford points out that the transition effects of a changeover from an income to a consumption-type tax base can be quite different depending on the exact way that the consumption tax would be implemented. In particular, a move from a broad-based income tax to a payroll tax would impose a higher burden on the young as compared with a move to a tax based more directly on actual consumption outlays, even though the two might be identical in the long run. I will abstract from such transition issues in the present discussion for the sake of simplicity, although it would be useful to explore them further. The whole issue of "transition" seems somewhat foreign to the tax expenditure concept — perhaps typifying the difficulties involved in trying to describe intertemporal phenomena with accounting procedures organized around annual accounting periods.

The integration of commodity taxes or a VAT with a personal consumption tax could be carried out in a quite similar way. For example, if a VAT were levied at a uniform rate across commodities, one could add the flat VAT rate to the rate structure in the personal consumption tax to arrive at a combined rate on consumption expenditure. Matters are more complicated in the case of VATs or other consumption taxes that apply at differential rates across commodities, for example by exempting certain "necessaries" or by applying higher tax rates to "luxuries". Presumably such forms of differentiation reflect an attempt to improve the equity of the commodity tax system. However, in considering commodity taxes and personal consumption (or income) taxes on an integrated basis, it might be most reasonable to assume that the personal tax structure could be adapted as desired to achieve vertical redistributive objectives, and that commodity-specific variations in tax rates are departures from the standard base. There still remains the question, however, of deciding what the appropriate rate structure would be. This question is discussed further in the next subsection.

Finally, let us consider the issue of tax timing and the choice of accounting period tax expenditure analysis under a consumption tax. Proposals for tax reform in the direction of a consumption tax often suggest that there would be a mix between payment of tax as consumption flows are realized and prepayment of tax on some other kinds of consumption, especially the flow of consumption that is provided by durable goods such as housing. If households prepay the tax on the imputed flow of consumption services provided by owner-occupied houses, what would this imply for the proper recording of tax expenditures? For example, should households that prepay their taxes be regarded as incurring tax penalties, to be offset later by tax expenditures? In the case of housing, perhaps the distinction is not crucial, so long as one is willing to take a life-cycle perspective. After all, the present value of taxes under an ideal flow-of-services treatment of housing would be equal to the tax paid at purchase under the tax prepayment method, so that the latter really does not involve any net tax advantage or penalty that needs to be taken into account for tax expenditure analysis purposes. On the other hand, there is always the problem of intertemporal variations in tax rates associated either with progressivity of the rate structure or with variations in the rate structure over time: the consumption flows would ideally be taxed at the rate applicable to the taxpayer in the year in which the consumption occurs, and this need not be the same rate that would apply in the year in which a durable good purchase were made. If the rate structure were highly progressive, this could become a significant issue.

In conclusion, it should perhaps be emphasized that while severe practical difficulties would make it impossible to account exactly for all departures from an ideal consumption tax, these generally seem no more forbidding than is true when one tries to measure tax expenditures against the comprehensive income tax standard. Thus, such accounting would appear to be feasible, though it might be rather crude in some respects.

III.2 The tax mix and the personal standard

We have already discussed how tax expenditure accounts could be adapted to accommodate simultaneously a personal consumption tax and a payroll tax, or perhaps a personal consumption tax and a VAT or some other commodity taxes. Such a task would be relatively straightforward because the bases of these taxes are very similar, essentially depending on consumption. However, there

are complications that arise in the determination of the tax rate structure to be used if these taxes are treated on an integrated basis for tax expenditure purposes. (As mentioned earlier, and as is discussed further below, the choice of tax rate structure is very important in determining the magnitude of tax expenditure estimates.)

The problem can be illustrated with a simple example.[42] Ignoring the personal income or consumption tax for the moment, let us confine attention to some set of commodity taxes that a government has instituted. Suppose that these commodity taxes have resulted in a spectrum of tax rates across commodities. If one wishes to integrate these taxes for the purpose of tax expenditure analysis, how is a "standard" rate structure to be determined? One possibility would be to assume that all commodities should be taxed at the maximum rate that is applied to any commodity. In this case, all commodities with lower rates would be considered to give rise to tax expenditures. Alternatively, one could use the lowest tax rate. In this case, the higher rates applied to all other commodities would give rise to estimated tax penalties. Would some rate in between, such as an average rate, be preferable? To pose the question concretely, imagine that the commodity tax rate structure consists of a VAT at 10% applied to all commodities except prescription drugs, which are untaxed, plus a separate 10% tax on cigarettes. In this system, three tax rates are represented: 0% (drugs), 20% (cigarettes), and 10% (all other goods). If one chooses the 20% benchmark, large tax expenditures will be reported because almost all commodities are taxed at a lower rate than that, whereas if 0% is chosen, large estimated tax penalties will occur associated with the taxation of non-pharmaceutical commodities. Some sort of average rate might be a reasonable possibility. Relative to this standard, deviations above and below the overall average would show up clearly.[43]

Another possible solution to the problem of fixing the standard base and rate structure on commodity taxes would be to treat each commodity tax independently of all other such taxes. This could be done for many different commodities, with the result that each separate tax (cigarettes, wine, beer, tires, gasoline, etc.) would be regarded as having its own base and rate structure.[44] Of course, one will not find many tax expenditures or penalties under this approach if it is carried too far. The danger is that by failing to integrate the different commodity taxes, one may fall into the trap of arguing that the tax expenditure standard is nothing other than what the current tax structure happens to be, a rather Panglossian standard for tax expenditure analysis. If one is willing to argue that the tax on gasoline is a separate tax which has as a standard the base and rate structure that is defined by current law, then why not the VAT, the payroll tax, and indeed any

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[42]The following discussion owes a great deal to Bruce (1989).

[43]Still another possibility would be to use a tax structure derived from optimal tax analysis. The greatest problem with doing so is probably the determination of an acceptable social objective function relative to which an optimal tax structure could be derived.

[44]See Department of Finance (1985, p. 142). The separate taxes on alcohol, etc. are not integrated into the standard accounts for commodity tax expenditures, but are mentioned as "Memorandum Items".

tax? To avoid such absurdities, some system of integration seems called for at least for commodity taxes considered as a group.

As noted, in the case of consumption-type taxes, integration with a personal consumption tax is relatively straightforward. But suppose that the personal consumption tax is not regarded as a satisfactory standard — say, for example, that Haig-Simons comprehensive income taxation is taken as the standard for the personal income tax. How then would it be possible to integrate the personal tax with an array of consumption-type taxes? Should one argue that the consumption taxes are really part of an overall tax structure that is to be compared with Haig-Simons? If so, why were they introduced? Evidently not because they bring the overall tax structure closer, overall, to true comprehensive income taxation. But if they do not, is it really appropriate to regard them as a failed approximation at Haig-Simons, as integration with the personal income tax would seem to imply, or should one instead draw the lesson that comprehensive income taxation itself is not the correct standard, since it is inconsistent with these elements of the tax structure?

The same issues arise in connection with the corporate income tax. Although this tax does not produce nearly as much revenue in the U.S. as the payroll tax, it certainly is the source of a large amount of measured tax expenditures. In Canada as well the corporation income tax plays a large role in existing tax expenditure budgets. Although it is beyond the scope of this paper to deal with the corporate income tax per se, we note that current practice in the U.S. and Canada is to treat corporations as separate entities from individuals and thus to treat the corporate income tax quite separately from the individual income tax in tax expenditure analysis.[45]

There appears to be no obvious resolution to the problem of determining "the" personal tax standard when the tax system consists of a number of disparate taxes. On the other hand, some approaches to the problem might be more useful than others. For example, one might start from a pure Haig-Simons comprehensive income tax standard, against which to measure all of the taxes in the entire economy. The result of such an exercise would be an estimate of the deviations from this norm, presumably measured tax-by-tax, throughout the whole revenue structure. Whether this standard would be regarded as fully appropriate or not, such an evaluation would interest many tax analysts. The same would be true of tax expenditure budgets based on a thoroughgoing application of the personal consumption tax standard. An accounting of tax expenditures (and penalties) relative to this standard would shed new light on each of the components of the tax system, and on their collective impact and interactions. While difficult, this approach would indeed highlight possible inconsistencies in the tax mix; doing so might be one of the more useful functions that tax expenditure analysis can perform.

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[45]As Bruce (1989) notes, there are no clear normative principles that would justify the taxation of corporations on a "classical" (non-integrated) basis, and the case for integrated treatment of the corporate and individual income taxes in the tax expenditure accounts is strong. This is particularly true in Canada, where partial integration is actually embodied in the tax law through the dividend tax credit. In both the U.S. and Canada, the past practice of exempting a certain portion of capital gains from taxation could also be interpreted as a type of partial integration.

III.3 Rate structure and the choice of accounting period

It has been a long-standing tradition in tax expenditure analysis to treat the tax rates and exemptions embodied in the current tax law as part of the standard to be applied in measuring tax expenditures. The choice of the rate structure is particularly important for the estimation of the quantitative magnitude of tax expenditures, both in the aggregate and by income class. This subsection discusses the determination of the rate structure to be used for tax expenditure purposes, particularly in a dynamic setting. There are important questions that arise concerning rate structures that change over time and the choice of the accounting period for tax expenditure analysis.

To begin with, it is important to understand the role of the rate structure in determining the quantitative magnitude of tax expenditures. This can be easily illustrated if we consider the case of a high-income taxpayer who makes a charitable contribution of a given size. Tax deductions for such donations have generally been treated as giving rise to tax expenditures. The actual magnitude of the tax expenditure is then the amount contributed times the marginal tax rate of the contributor. In the U.S., top-bracket contributors to charitable organizations have faced quite different marginal tax rates over time: as high as 90% in the 1950s, 70-80% in the 1960s and 1970s, 50% in the early 1980s, and 28% in 1988. The value of the tax expenditure arising from any given amount of charitable contributions by such a taxpayer has thus varied dramatically over time. Similarly, the estimated distribution of tax expenditures by income class is quite sensitive to changes in the marginal structure.[46] The aggregate level of tax expenditures depends on the overall marginal rate structure as well, and clearly varies over time (*ceteris paribus*) on account of tax rate changes.

At least at first glance, the rationale for using the existing rate structure for tax expenditure estimation seems clear enough. There is no alternative to doing so if one wishes to measure the amount of tax actually saved by an individual taxpayer in a given year on account of some tax expenditure, such as the deduction for charitable contributions. Similarly, in measuring the impact of a given tax expenditure on the economic incentives facing a household, which is one of the uses to which tax expenditures are put, the actual marginal rate is certainly the appropriate rate to use. And in any case, what alternative is there for determining the tax rate structure with respect to which tax expenditures are to be measured?

While it is admittedly difficult to imagine, in general, how one could find and defend good alternatives to the existing rate structure, the current U.S. rate structure certainly seems to make it worthwhile to try. For 1988, the marginal tax rate structure for a married couple is quite simple to describe: 15% for taxable income up to $29,750, 28% in the $29,750-$71,900 range, 33% in the $71,900-$171,090 range, and 28% from $171,090 up.[47] It is a curious feature of this structure that the marginal rate first rises, then falls. While the number of people who are in the highest-income bracket is

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[46]The Joint Committee on Taxation routinely publishes estimates of the distribution of tax expenditures by income class (see, i.e., JCT, 1988). See also Brannon (1980), Kesselman (1977), and Witte (1983) for estimates of the distributional impact of tax expenditures.

[47]This is for a married couple filing a joint return, with only two exemptions.

small, the fact that they face the lower marginal rate of 28% is probably not insignificant for tax expenditure analysis purposes, since they would be among the major beneficiaries of some of the items classified as tax expenditures. For example, the estimated tax expenditures for deductions from state and local income and property taxes might be significantly lowered on account of the lower rate that the highest income taxpayers face.

This peculiar feature of the law seems to be unique to the U.S., and a detailed discussion of its implications for tax expenditure analysis might not appear to be of much general interest. However, careful consideration of this rate structure leads naturally to a series of general issues concerning the role of tax rate structure in tax expenditure analysis, and it therefore seems worth pursuing.

To start with, it might well be argued that the marginal rate of 33% quoted above is a misinterpretation of the true marginal rate structure. In publications describing this feature of the law, the 33% rate is said to arise from a gradual *phase-out* of the exemptions that taxpayers receive, and of the lower marginal rate on the income of the taxpayer that falls into the 15% marginal rate bracket. That is, as one moves up the taxable income scale, the marginal tax rate could be said to remain fixed at 28%; what "really" happens is that taxable income simply rises more than dollar for dollar with gross income.[48]

Suppose that we accept this interpretation of the tax system at face value. What are the implications for the measurement of tax expenditures? Traditionally, personal exemptions are regarded as a necessary allowance (perhaps for some of the basic necessaries of life) that must be accorded to all taxpayers in order to assess true ability to pay. (This rationale would seem to be equally applicable whether the tax base is Haig-Simons comprehensive income or a broad-based consumption tax.) If we take this view, then the phase-out of the exemptions for high-income taxpayers would have to be recorded as a tax penalty or negative tax expenditure.

An alternative to this would be to interpret tax exemptions themselves as tax expenditures. (It would certainly be easy to design a direct expenditure program that would have the same real impact as tax exemptions do.) If this approach were taken then the phase-out at high income levels would not be treated as a tax penalty, but the exemptions at all other income levels would be treated as tax expenditures. However, treating tax exemptions as tax expenditures would be at variance both with accepted practice and with the principles of tax expenditure analysis enunciated in the standard references on the subject such as Surrey (1973). This alternative therefore seems unattractive.

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[48]The description found in Commerce Clearing House (1987, p. 14) is as follows: "The 33% taxable income bracket ... reflects the phaseout of the 15% tax rate that begins at the $71,900 taxable income level and ends at $149,250 and the further phaseout of two exemptions beginning at the $149,250 taxable income level and ending at $171,090, at which point the 28% rate again becomes effective. For each additional exemption, the upper end of the 33% taxable income bracket is increased by $10,920." Note here that households with more exemptions (i.e., because there are more children or other dependents in the household) face the higher marginal rate over a larger income range that those with fewer.

Suppose then that we agree provisionally that the exemption phase-out should be recorded as a tax penalty. How should we treat the phase-out of the 15% tax rate that would ordinarily be applied to the income falling in the bottom bracket? Is this also a tax penalty, or should this part of the phase-out be regarded as an attempt to raise the marginal rate to 33% over a certain income range? Or — a third possibility — should we continue to regard this as a phase-out, but a phase-out that is part of the "normal" tax structure, and hence not something that gives rise to a tax penalty? There is no obvious principle to which one could appeal in order to justify the phase-out of the lower rate as a deviation from some generally understood standard, just as there is no obvious principle that determines what the appropriate degree of progressivity of the tax structure should be. If anything, it appears most natural to treat the phase-out of the 15% bracket as a normal part of the tax structure.

However these particular issues will be resolved in practice, they raise disturbing questions about the role of the rate structure in measuring tax expenditures and about exactly what one means by "the" rate structure itself. Not least disturbing is the fact that whether a particular feature of the tax law is regarded as giving rise to a tax expenditure or a tax penalty might depend on subtle distinctions in the phrasing of its description. More generally, it appears that there is a certain arbitrariness in the choice of the tax rate structure for tax expenditure analysis.

Whether one regards the imposition of the 33% rate as a tax penalty or not, the 28% rate at the very top is certainly very low by postwar standards. It has been argued that this is a windfall tax break for the rich. However, broadening of the tax base was a major ingredient of the tax reform which resulted in that low rate, and it is probable that the top rate would not have been lowered so much had various tax preferences and deductions not been curtailed. Many of these preferences, like the partial exclusion of capital gains income, would ordinarily be considered tax expenditures. This prompts an intriguing thought. Imagine an initial situation in which a high proportion of high income individuals are able to take advantage of one type of tax "preference" (or tax expenditure) or another. Perhaps not all high income individuals would exploit the same preferences, or exploit them to the same extent, so that the effective tax imposed on the rich would be uneven. Imagine now that in order to rationalize the system of tax preferences for the rich, the existing tax preferences are consolidated and made universal so that all high income taxpayers would be equally able to take advantage of them. To take an extreme case, suppose that the partial exclusion of capital gains income were extended to most or all other types of income. Such a policy change would result in an increase in measured tax expenditures for high-income taxpayers. But the effect of such a policy change might be virtually equivalent to a general tax cut for high income taxpayers. And, as we have seen, a general lowering of marginal rates *lowers* measured tax expenditures.[49]

This is a somewhat paradoxical situation, and it points to a dilemma in tax expenditure measurement that is akin to trying to decide whether a glass

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[49]One is reminded in this context of the estimates of Pechman and Okner (1974) and Pechman (1985) of the distribution of tax burdens by income class. They find that the individual income tax burden is distributed far less progressively than the marginal rate structure would suggest.

is half empty or half full. To take a simple example, suppose that the top marginal rate in the tax structure is 50%, and that half of the income of top-bracket taxpayers is fully taxed at this rate while the other half is taxed at, say, 25% (i.e., because of a partial exclusion of income from the tax base). Is it more correct to say that the forgone revenue from limited taxation of the half of the income with the preferential rate is a tax expenditure, or to say instead that the heavier taxation imposed on the other half of the income of these taxpayers is really a tax penalty or negative tax expenditure? If one is tempted to answer that this situation gives rise to a tax expenditure, vary the example by letting 75% or even 90% of these high incomes be sheltered, instead of only half.

Now let us consider the intertemporal aspects of changes in the marginal rate structure. In the U.S., frequent revisions of the income tax law have caused most individuals to face tax rates that are quite different than would have been the case had the law been unchanging over time. Most conspicuously, marginal rates have fallen for high income individuals.

In such an environment, those who successfully arbitrage against the changes in tax policy over time, for example by postponing the realization of taxable income from one period to the next, can escape a significant part of the burden of taxation. It is true that one of the main vehicles for doing so in the U.S., namely sheltering income in the form of preferentially taxed capital gains, has recently been eliminated (at least for the time being). Nonetheless, others remain: pensions, for example, or partial exclusion of the capital gains on owner-occupied housing. In such cases, the variation of tax rates over time has resulted in substantial tax savings for those taxpayers who, whether intentionally or not, made the right decisions about the form in which to receive income, when to realize certain income, and so on. Even when tax rate changes are not anticipated, they certainly have an effect on the realized distribution of tax burdens across households. Since tax expenditure estimates are generally made without any attempt to distinguish between intended or planned tax savings and unplanned savings, so *ex post* assessment of actual tax savings would seem to be the appropriate basis for calculating the tax expenditure implications of tax rate changes over time. Moreover, to the extent that they are anticipated, they would have a systematic effect on the allocation of resources in the economy. It is certainly consistent with the spirit of tax expenditure analysis for such tax incentive devices to be included in the accounts.

It might seem implausible at first sight that taxpayers can correctly predict the change in tax rate structure over time. Tax changes are not infrequently announced in advance, however, and there are at least a few recent instances where it would have been quite straightforward to make some reasonable inferences. For example, the first Reagan administration came into office having made a strong commitment to tax rate reductions. Even before the tax law was amended, it would have been reasonable to anticipate that some significant marginal rate reductions would be forthcoming in the near future. Once the law was in fact changed, it called for a scheduled decrease, over three years, of the whole rate structure. Certainly at this point many taxpayers would come to anticipate (correctly) that they would experience falling marginal rates over the next several years. Tax-minimizing behaviour in such a situation would call for some further postponement of capital gains, some postponement of pension distributions, perhaps a higher level of saving in non-sheltered forms (in anticipation of a reduced tax incentive for sheltered saving), and so on.

The problem that this creates for tax expenditure accounting should be clear. Indeed, the problem has already been mentioned in connection with the issue of tax expenditure accounting for capital gains, pensions, etc. In practice, no adjustment or allowance is made to try to capture the effects of changing tax rates over time. The deferral of income realization to years with low marginal rates causes estimated tax expenditures in the high tax years to be reduced, while the tax expenditures in the low tax years will be determined as the product of a larger base (i.e., more pension distributions) and a smaller tax rate; thus tax expenditures in later years may be higher or lower than they would otherwise have been. In any case, though, tax arbitrage of this type would cause total estimated tax expenditures over the relevant time periods to fall — even though the real incentive that the tax system creates for the tax-favoured activities may well have increased at the same time.[50]

In principle, one could calculate the tax advantage that accrues to a taxpayer from the ability to reallocate income across time periods. It would be extremely difficult to do so in practice, however, because there is no obvious way to determine the appropriate tax rates to apply to the tax expenditure item in question. In any event, such an approach would cast serious doubt on the single-period basis on which tax expenditure accounting has generally been done. If one wishes to analyze the full effects of tax policies that have impacts extending over multiple time periods, then one might equally wish to have taxes themselves imposed on a multi-period measure of taxable income. Such an approach would open up many serious questions for tax expenditure analysis. Some of these have already been discussed above in connection with the possible use of a consumption tax standard rather than a Haig-Simons standard.

III.4 Tax expenditures in an intertemporal setting

We have already discussed several issues concerning the choice of accounting period and changes in the tax structure over time. However, explicit discussion of questions relating specifically to the Federal deficit seems worthwhile, at least in the current U.S. context. Does the deficit have any relevance for the design of tax expenditure budgets?

Suppose that we try to put the functioning of the tax system into a reasonably long-term perspective. Imagine, for the moment, that there is some fixed set of expenditure programs to which the government is committed over a period of years. Tax revenues will have to be forthcoming in adequate amounts to finance these programs.

One possible financing approach is to try to make tax revenues match government spending in each year. If this is done, then there will be no deficit. Alternatively, taxes could be lower than spending in some years and higher than others, so that there would be a deficit in some years. The comparison of these two alternatives is really a comparison of two different intertemporal distributions of tax liabilities. Suppose then that a change is

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[50] As discussed earlier, intertemporal tax arbitrage might be regarded as desirable because it amounts to a type of averaging by individual taxpayers. If so, one presumably would wish to shift tax expenditure accounting onto a multi-year basis, and to incorporate any obstructions to intertemporal tax minimization as tax penalties.

made in the financing method, so that taxes are cut for a period of time, only to be raised later. This tax cut, let us assume, takes the form of a general reduction in tax rates. According to the usual methods of tax expenditure accounting, which is done entirely on an annual basis, the initial tax cut would not be counted as a tax expenditure, nor would higher taxes at a later date be counted as a tax penalty. Indeed, estimated tax expenditures in the years in which taxes are cut would *fall* because they are generally measured with reference to the current marginal tax rates. Tax expenditures in future years with higher tax rates would rise, for the same reason.

Suppose now, as an alternative, that taxes are cut not by lowering rates, but through other means. For example, suppose that the limits on IRA contributions are lifted, so that much more saving takes place in a tax-sheltered form, or that the rules for deducting charitable contributions are eased, etc. If many such changes were introduced on a very broad scale, the effect in some respects would be like a tax cut. Yet in this case measured tax expenditures would definitely *rise* in the year in which these policy changes were introduced.

There is of course an important economic difference between the two cases. In the first case, tax rates fall, whereas in the second case they are fixed. With higher rates in the second case, many of the distortions associated with taxation are exacerbated. Perhaps it is fully appropriate, therefore, that the tax cut should not be regarded as a tax expenditure. On the other hand, if a tax cut gives rise to higher taxes at a later date, tax distortions at that time may well be worse than otherwise, and perhaps this should be taken into account. This point is easily illustrated by an analogy. Suppose that the tax law were amended so that earnings in the month of January 1989 would be exempt from income taxation, with earnings in the rest of the year taxed somewhat more heavily to make good the revenue shortfall. No doubt this would be considered a tax expenditure in the 1989 tax expenditure accounts. By analogy, a tax cut in one year (rather than one month) followed by higher taxes in subsequent years (rather than months) ought also to be considered a tax expenditure. Of course, doing so would involve putting the tax expenditure budget on a multi-year basis.

One reason why this is unlikely to be implemented in practice is that examples like the one just given tend to assume some knowledge about the future that accountants generally do not have. In the above discussion, we assumed that a tax cut in one year would be followed by higher taxes in later years. Yet this may not be the case. Perhaps present tax cuts will be linked with future *spending* cuts. If so, one should not regard current tax cuts as being a form of tax expenditure.

Which of these scenarios will transpire, of course, is the subject of great debate. Some of the main contributors to the tax expenditure literature hold the budgetary process in quite high regard. Such writers might view large deficits as a vivid illustration of how easy it is to give money away through the tax system. For example, Surrey (1973) comments that "tax subsidies, and questions about their low priorities, their wastefulness and their inefficiencies are ... out of sight and unseen" (p. 33). One advantage of tax expenditure accounting is that it might help to bring the level of analysis of tax provisions up to the level that one finds on the direct expenditure side of the government accounts: "[I]f these tax amounts were treated as line items on the expenditure side of the Budget, they would automatically come under the close scrutiny of the Congress and the Budget

Bureau" (p. 4).[51] One might regard the tax cuts of the early 1980s in the U.S. simply as a massive, unscrutinized, wasteful tax expenditure. Rather than tailoring the tax cut to carefully defined objectives, cutting taxes so as to reap the highest gains in efficiency and the greatest improvements in equity, there was instead an across-the-board raid on the Treasury. Sometime this will have to be made up by tax increases. The tax cuts will then appear as a selective tax break to taxpayers in one year at the expense of taxpayers in another year.

Many observers, however, would not share such a sanguine view of the budgetary process as Surrey and some other tax expenditure advocates seem to have. Anecdotal evidence abounds that inertia, ignorance, and even deliberate avoidance of close budgetary scrutiny are responsible for keeping some public expenditures in place for many years.[52]

Concern about the difficulty of program review and control has grown in step with the growth of so-called "entitlement" programs — programs such as social security or agricultural price supports which, once in place, commit the government to making certain expenditures according to specified rules (such as the schedules for computing social security benefits) for an extended or indefinite period, with no requirement for further legislative approval or review. Entitlements now account for about $500 billion of Federal government expenditures annually (OMB, 1988a, p. 2b-16). When entitlements are added to interest on the debt, the result is a total of 55-60% of the Federal budget that has come to be called "uncontrollable", as opposed to the "controllable" part of the budget which requires regular congressional action in order for the programs involved to be sustained.[53] Since these programs are kept in place, year after year, without necessarily coming under legislative review, they share many of those features of the tax law that Surrey and others find so objectionable from a policy and program control viewpoint: they may be wasteful or inequitable or they may have outlived their usefulness; they might be susceptible to marginal improvements of various kinds, but there is no mechanism that will force them to be exposed to critical evaluation and scrutiny.

Whether because of concern with the nature of the budgetary process, or because of a conviction that the level of government spending is just too large, there are those who would view the recent deficits not as the result of taxes that are too low, but as the result of spending that is too high. From this perspective, the desired scenario for deficit reduction would be a reduction in the rate of government spending, not an increase in taxes. The

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[51]Similar remarks appear in Surrey (1979a, b) and indeed throughout the tax expenditure literature.

[52]Turn to almost any page in Stockman (1985). Even discounting heavily for journalistic licence and dramatization, such accounts do not inspire confidence in the ability of the cognizant authorities to "scrutinize" the budget.

[53]See OMB (1988a, pp. 6g-29). The term "controllable" is being used in a technical and well-defined sense here, needless to say. The figures quoted here *exclude* that component of uncontrolled expenditures arising from contractual agreements entered into in prior years (other than interest on debt), such as committed expenditures for long-term defense expenditures, and really just reflect entitlements and interest on the debt.

tax cuts would not be seen as a temporary tax break for this year's taxpayers at the expense of taxpayers in some future years. In this view, the tax cuts are certainly not a form of tax expenditure.

IV. What standard to use?

There is no simple way to find a perfect, implementable personal standard for tax expenditure analysis. Such a standard probably does not exist. We have seen repeatedly that there are inevitable problems, both practical and conceptual, involved in estimating tax expenditures. This is true whether one uses a comprehensive income tax standard, a consumption tax standard, and, no doubt, any other standard that one might imagine. We have consistently found that the measurement of tax expenditures becomes more complicated when intertemporal issues are involved. This is true whether the issue involves individual behaviour, as in the tax treatment of savings, or whether it involves the behaviour of the government itself over time, for example, in the changing of tax rates and other aspects of tax policy. Finally there is the question of whether tax expenditure accounting should be done for each component of the tax structure considered in isolation, or whether two or more of these components should be grouped together.

Different analysts may reach quite different conclusions on these issues. One way or another, however, some standard must be decided upon if tax expenditure accounting is to be done. What, in the end, should one do? In this section, in order to limit and focus the discussion, I will consider only the choice of the tax base relative to which the personal standard would be defined, leaving aside the question of rate structure and of the potential integrated treatment of two or more parts of the tax system. The choice of the base alone is a challenging problem. To address this question, let us first think about how tax expenditures are going to be used.

Ultimately, the whole exercise of preparing a tax expenditure budget is of interest because it provides guidance in thinking about tax policy. Whether the fact is explicitly admitted or not, tax expenditure accounting is inevitably going to be used for normative purposes. The determination of the reference tax structure is not some technical exercise in accounting procedures. The only potentially interesting specifications of a reference tax structure are those that have real normative appeal.[54] The specification of a standard would seem unavoidably to be a choice of an ideal or optimal tax structure, as nearly as one can be determined. This is an inherently controversial and difficult undertaking, and it is one about which reasonable and well-intentioned tax analysts and policymakers can and will disagree. The task is to find a way to make tax expenditure accounting useful for policy analysis purposes while recognizing that universal or even widespread agreement about the structure of an optimal tax may be lacking.

Before making any specific suggestions about the appropriate standard to use in practice, let us consider some of the potential objections to the use of an explicit normative basis for tax expenditure budgetting. Two serious problems stand out. First, if the accounts are to be prepared by government

[54]Perhaps the simplest standard that one could imagine would be a flat *per capita* head tax. All can agree that this is not an interesting standard — but why?

agencies, someone must be in a position to authorize the preparation of accounts on some definite basis. How can such a decision be made, and who will make it? Second, once a decision has been made to estimate tax expenditures according to some normative criterion, the estimates themselves become imbued with an ethical, philosophical, perhaps even partisan character that may render them less useful than estimates prepared on an apparently more "neutral" and "objective" basis. When there is an explicit normative foundation for tax expenditure accounting, use of the tax expenditure estimates may appear to become tantamount to acceptance of the normative philosophy underlying them. Somehow one feels that the tax expenditure budget should not become a mere expression of the current tax agenda of the executive branch, of the majority party in the legislature, or of whatever other agency or institution might be charged with its preparation. There is a fine line to tread here.

These problems are real, but note that they already arise under current tax expenditure accounting methods. In the U.S., tax expenditure accounts are prepared in both the executive and legislative branches. Sometimes the standards used by each differ in significant ways. A preference for one standard or the other could be taken as an expression of opinion about certain policy issues. The real question is not whether tax expenditures will be based on normative criteria, but whether the criteria will be explicit and open to discussion. I would argue that nothing is lost by confronting the normative question head-on, and indeed that something valuable is gained.

A practical solution to the problem of tax expenditure accounting must come to grips with the fact that different groups and individuals have different opinions about what the tax structure ought to be. In earlier sections of this paper we have considered two quite different individual tax bases, the comprehensive income tax and the consumption tax. Both of these bases have their advocates. Tax expenditure accounts that adhere strictly to one approach will in general be of little use to those who favour a quite different method of taxation. The latter may choose simply to ignore the tax expenditure accounts as irrelevant. This is perhaps one of the worst possible outcomes for the tax expenditure budget.[55] To cope usefully with differing views about tax policy, therefore, I would suggest that tax expenditure budgets should be prepared using *more than one* standard.

How many standards should there be? How would these alternative standards be identified? There are different possibilities. A particular standard can always be imposed as a matter of legislative decree. Alternatively, within the framework of overall legislative guidance, one can leave a wide degree of latitude in the hands of those, presumably in staff positions in the Treasury/Finance Department or in legislative committees, who are charged

[55]In the 1980s, the U.S. has gone through a period of remarkably intense discussion about and reform of tax policy. I have certainly not studied the entire record of this voluminous debate. It appears to be true, however, that only in one or two isolated and comparatively minor instances were the tax expenditure accounts per se used to suggest or evaluate possible reforms. When will tax expenditure analysis really be useful for policy purposes, if not in a time when the attention of policymakers is focussed on tax reform? One must ask *why* tax expenditure concepts played such a small role in the tax reform debate.

with structuring the accounting framework and with making the detailed computations.

At present, in the U.S., the latter approach is used. According to the legislation that calls for tax expenditure accounts to be prepared, the budgetary authorities are supposed to estimate "revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of liability".[56] However, detailed instructions are not provided by the Congress, so that "deciding which provisions are special or preferential is necessarily a matter of judgement" (OMB, 1988b, p. G-1). It is recognized that different approaches could be taken: for example, "[o]ne could use a truly comprehensive income tax ..." or, as still a different possibility, "the standard could be a comprehensive personal tax on consumption" (OMB, 1988b, p. G-3).

These latter remarks suggest that there is considerable flexibility in the institutional arrangements through which tax expenditure accounting is currently carried out in the U.S. Let us therefore assume that the practical question of the *mechanism* through which multiple reference tax structures can be defined and implemented has already been solved: if the relevant authorities wish to measure tax expenditures relative to a different standard tax structure, or if they wish to consider several different standards, they can do so. The remaining questions then centre around how many different standards can or should be considered, and which ones should they be?

The answers to these questions will change over time. At the time that Surrey first proposed the tax expenditure concept, Haig-Simons comprehensive income taxation seems to have occupied a dominant position in the thinking of public finance economists. The choice of the comprehensive income tax as a reference tax structure for tax expenditure purposes was perfectly natural in such an intellectual environment. Twenty years later it is still an approach to personal taxation with many supporters, even if it is no longer a virtually unchallenged leader among contenders for an optimal tax structure. The preparation of tax expenditure estimates using a comprehensive income standard, or even the somewhat compromised "practical" comprehensive income tax standard that government agencies have actually implemented, remains a valuable contribution to tax policy description and analysis.

The field of public finance has not been static in the past two decades, however. Thought, knowledge, and data all evolve over time. So do economic systems themselves, and, needless to say, so does economic policy in general and tax policy in particular. Professional opinions can shift, splinter, and coalesce in new and different configurations. If tax expenditure analysis is to retain broad appeal, it must be capable of adaptation.

As discussed in the introduction, many economists have advanced proposals for tax reform either of a comprehensive or of a more limited kind. Few if any have proposed a tax structure that is well-approximated by the standard or reference tax structure used in current tax expenditure analysis. From the various viewpoints of such analysts, how can tax expenditure accounting as currently implemented help to promote good policy? While many would support the broad objectives of tax expenditure analysis — careful

[56]From the Congressional Budget Act of 1974, quoted in Office of Management and Budget (1988b, p. G-1).

scrutiny of departures from an optimal tax structure, bringing strong illumination to bear on attempts to distort the tax structure so as to create implicit subsidies to particular interest groups, providing a framework for explicit analysis of the incentive and equity effects of many of the particular features of the tax law, large and small, that have accumulated over many years of reform and revision -- they might have much reason to quarrel with the identification of particular items of the tax structure as "deviations" from some "generally accepted" norm of tax policy.

At present, it would appear that the comprehensive income tax and the personal consumption tax stand out as leading candidates for use in tax expenditure analysis. The exercise of preparing tax expenditure budgets based on each of these standards would be most illuminating. By showing clearly how the existing tax structure differs from either, such budgets would highlight some of the inconsistencies that cause a number of distortions and inequities in current policy. By adhering as strictly as possible to the basic conceptions of these two tax systems, the tax expenditure budget would help to educate policymakers and the public about the basic ideas that underlie the actual and proposed policies that have to be decided upon in practice. The reasons behind the sometimes conflicting opinions of economists and other tax analysts on specific tax policy issues would perhaps become more clear. In the case of the consumption tax standard, an attempt to determine the level of tax expenditures would probably require detailed technical analysis of many specific questions that have not previously been encountered. This in itself would help quite a lot in the evaluation of a relatively pure consumption tax as a practicable alternative to existing policy. All of these would be very valuable functions that tax expenditure accounts could perform.

Finally, if tax expenditure budgets were prepared using two or more standards, one would be led to compare the two lists and to see whether there are any items that appear on both.[57] There would be at least some. Untaxed fringe benefits are simply untaxed compensation. This is a deviation from the comprehensive income tax standard and it is a deviation from the consumption tax standard. The fact that they would appear on both lists is significant. The same would be true of the mortgage interest expense deduction in the U.S. This deduction has no place in a consumption tax, nor does it have any place in an income tax in which the imputed rent on owner-occupied housing is tax exempt. By comparing items on two different lists, it would be clear whether any particular tax reform proposal would serve primarily to move the tax structure in the direction of a different basic approach to taxation, or whether it would represent an improvement in tax policy from any of several widely-shared perspectives. This might help to focus tax reform efforts in a way that permits useful reform to occur where it can occur, without compromise on fundamental principles.

In summary, there seem to be no insuperable obstacles to preparation of tax expenditure budgets using more than one reference tax standard. Such budgets would perform a valuable informational and educational function, and might contribute usefully to tax reform, even in the face of differing views about what form the tax system should ultimately take. It is probably inevitable that the basis of tax expenditure accounting will have to adapt

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[57]See Break (1982, 1985), who breaks the existing tax expenditure list into various categories indicating whether any particular item appears definitely to be a tax expenditure or whether its status is more ambiguous.

and change over time. The economic analysis of taxation advances gradually over time. Different policy problems arise and focus attention on one aspect or another of the tax system, and opinions about optimal policy gradually change. The experience of the late 1970s and early 1980s with historically high rates of inflation led to a considerable amount of research into the relationship between inflation and taxation. There is now, and there will probably be for a long time, a heightened awareness among tax analysts of this relationship and its implications for tax policy. Perhaps in the next decade a great deal more attention will be paid to the implications of foreign trade for tax policy evaluation. There is no reason why the tax expenditure budget should not gradually evolve as well. But at the margin of this evolution, there will be differences of opinion about what the standard ought to be. The tax expenditure budget will probably have a greater impact, and contribute more to the policy debate, if it can accommodate some of these varying opinions.

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