

Tax Expenditures: Concept and Framework for Analysis

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I. Introduction

Tax expenditures arise when governments try to accomplish objectives using special tax provisions rather than other expenditure policies such as appropriations (direct spending), regulations, loans, and grants. Examples are tax expenditures that provide incentives to produce or purchase specific products or services, or to provide financial support for low-income workers. Tax expenditures are intended to encourage individuals and businesses to engage (or engage more fully) in economic activity they would not otherwise have engaged in (or engaged as fully in), or to provide financial assistance to those with low incomes or special circumstances such as poor health. That is, tax expenditures are intended to improve outcomes that would result from private sector activity alone.

The federal and state governments have introduced numerous special provisions into their tax systems to pursue a wide range of objectives. Although the revenue effects of these special provisions are large and growing, tax expenditures have not been subject to the same routine evaluation as other expenditure programs such as appropriations. However, this is changing; many states have begun estimating tax expenditures and publishing tax expenditure reports or budgets.

This Report examines some of the key questions raised by the use of tax expenditures by the federal and state governments. Section II discusses the tax expenditure concept: What distinguishes tax expenditures from other features of a tax system? To evaluate and control the use of tax expenditures, estimates of their magnitude are needed. How this is ordinarily done is the topic of section III. Section IV presents a framework for analyzing and evaluating the economic effects of tax expenditures: How can we determine whether a specific tax expenditure has its intended effects, and whether it is more or less effective than alternative policy actions? Section V provides a brief overview of the use of tax expenditures by the federal and state governments and how those governments analyze the effects of their tax expenditures. The last section summarizes the main conclusions of the Report.

II. The Tax Expenditure Concept

The federal and state governments spend tax revenues in two different ways. Revenues are spent directly through appropriations to support the operation of government: schools, highways, health, public safety, etc. Revenues are also spent through tax expenditures, which disburse or spend revenues that tax systems would otherwise generate.

Tax expenditures spend tax revenues and reduce a government's budget surplus or reserves just as appropriations do. But tax expenditures differ from appropriations in that they are special tax provisions, administered by revenue departments.

Although tax expenditures function as an alternative to appropriations and other government policies, they are commonly defined as the revenue losses attributable to special tax provisions or "tax preferences". This definition often leads to tax expenditures being evaluated by tax policy criteria. But they should instead be evaluated by the same criteria as other expenditure policies, because tax expenditures are intended to meet expenditure objectives.

Tax expenditures arise from special tax provisions that spend revenues by reducing the tax liabilities of taxpayers who meet specified criteria. Examples of such criteria are the sources or amount of taxpayers' income, their spending on specified products, their age and capabilities, their employment or lack thereof, the products they produce, the inputs and technologies they employ in production. A special tax provision may be a *special* exclusion, exemption, deduction, deferral, preferential tax rate or credit. Exclusions, exemptions, etc. that define the baseline tax (see below) *are not "special" and therefore do not give rise to tax expenditures*. Special tax provisions may be combined with floors, ceilings, phase-ins, phase-outs, income thresholds and demographic characteristics.¹ This array of special tax provisions means that tax expenditures can have a variety of economic effects.

Tax expenditures fall into two broad categories. One consists of the tax expenditures that provide incentives and funding for individuals and businesses to engage in activities that policymakers see as serving public purposes, such as entering the work force or increasing hours worked, purchasing solar energy systems, or producing energy from alternative sources. The other consists of tax expenditures that provide resources to taxpayers who have specified characteristics or are in particular circumstances, such as low-income workers and the elderly. Tax expenditures are thus intended to achieve public policy objectives that are not directly related to the fair and efficient collection of tax revenues.

Government programs implemented with tax expenditures have a revenue cost just as do direct expenditure programs. This revenue cost is measured by the amount of taxes *not collected* rather than by the amount first collected and then spent. The revenue cost of tax expenditures can be tracked with a tax-expenditure budget which is a set of estimates of the revenue losses attributable to special provisions of the tax system, with each loss being a tax expenditure. A tax expenditure budget may also describe the intent of each tax expenditure, list the statutes that authorize it, and provide other information needed to review and evaluate it.

¹ The Congressional Budget and Impoundment Control Act of 1974 (PL 93-344) formalized the process of identifying and quantifying tax expenditures and mandated annual publication of tax expenditure estimates for all taxes in the federal budget. That act defines tax expenditures as "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."

A. Baseline Taxes

Tax expenditures are defined and measured with reference to *baseline* taxes against which existing taxes can be compared to determine which of the provisions of existing taxes are “special” and therefore give rise to a tax expenditure. Indeed, tax expenditures can only be understood as deviations from a baseline tax system that serves as a basis for comparison. Baseline taxes define the revenue raising (or purely tax) part of the tax system.

Baseline definitions differ across taxes.

- A baseline income tax would tax all real income from all sources. The corporate and personal income taxes would be integrated, but corporations might be taxed separately as a means of withholding tax on shareholder income. In the case of the federal income tax, how to define baseline income has been debated since the tax expenditure concept was first broadly introduced by Stanley Surrey in 1967.²
- A baseline consumption tax would tax all real consumption regardless of how financed, obtained, or produced. For a consumption tax in the form of a gross receipts or retail sales tax, the baseline would be final sales of all goods and services.
- For a property tax, the baseline would be the current market value of all real property, regardless of how used or where located.
- For a highway user tax, it would be measures of or proxies for highway wear and damages, congestion, and environmental damages.

1. Tradeoffs required

Baseline taxes should be consistent with standard tax principles: they should be fair, economically neutral, transparent, and have low costs of administration and compliance.³ But application of these principles typically does not yield a unique baseline for a tax. Tradeoffs are required because the principles conflict with one another. In particular, a baseline tax that emphasizes fairness and economic neutrality is likely to be more complicated than one that does not, and consequently will lack transparency and have relatively high administrative and compliance costs.

For example, to fully implement the fairness and economic neutrality principles, taxpayers’ income from all sources should be included in a baseline income tax. But doing so would entail high administrative and compliance costs, and likely require complicated reporting rules that reduce transparency. Examples of adjustments that reflect this trade-off are exclusion of imputed net rental income from owner-occupied housing,⁴ exclusion of accrued but unrealized capital gains, and taxation of nominal rather than real capital gains. Similarly, all final sales of goods

² Reported in U. S. Treasury (1969, p. 322). See also JCT (2008a) and Carroll et al (2008).

³ JCT (2008a, p. 7) states that “If tax expenditure analysis is to enjoy broad support, it (the baseline or normal tax system) must be seen as *neutral* and *principled*”

⁴ The Office of Management and Budget has recently begun estimating the revenue loss from failing to tax the imputed rental income of owner-occupied housing.

and services should be included in a baseline sales tax base, but states may not impose a tax on small out-of-state purchases because of the high administrative and compliance costs of doing so.

These and other tradeoffs mean that even under a well-designed baseline tax, some taxpayers will be taxed more lightly than others, resulting in failures of both fairness and economic neutrality. The revenue effects of such trade-offs in a baseline tax are *not* tax expenditures.⁵ More generally, the inability or failure to apply standard tax principles when defining the baseline tax may lead to revenue losses, but such losses are not tax expenditures because they do not reflect decisions to use the tax system to pursue specific objectives.

2. Adjustments for fairness and economic neutrality

The fairness or equity principle is generally recognized as requiring tax-free thresholds for income or consumption that taxpayers must reach before they have the ability to pay taxes.⁶ Therefore, in the case of a baseline for a comprehensive income or consumption tax, some system of exemptions, deductions, and/or credits is necessary to define tax-free thresholds. Such features of an income or consumption tax are justified by the ability-to-pay principle, and they do not give rise to tax expenditures even though they narrow the tax base.

For example, standard income tax deductions and personal exemptions are adjustments for ability to pay, and therefore should be incorporated into the definition of a baseline income tax and not considered tax expenditures. Similarly, deductions or credits for child day care expenses could also be considered adjustments for ability to pay, and therefore not tax expenditures. But revenue losses due to the federal EITC and State Working Families Tax Credit are tax expenditures because they depend only on wage and salary income instead of a broad index of ability to pay. Deductions or credits for all health care expenses in excess of some income threshold might also be justified by the ability-to-pay principle. But deductions or credits for a particular form of health care expense, such as contributions to a medical saving account, are tax expenditures.

The economic neutrality or efficiency principle – that taxes should interfere as little as possible with economic decisions⁷ – may also impose restrictions on a baseline. In the case of a sales tax baseline, exempting business purchases of computers would be justified by the efficiency principle – uniform taxation of the value of *final* sales of goods and services. But the revenue loss from exempting household purchases of computers is a tax expenditure.

⁵However, the Office of Management and Budget does count as tax expenditures revenue losses from some tax code elements aimed at simplifying the system: “In addition, some tax expenditures actually simplify the operation of the tax system, (for example, the exclusion for up to \$500,000 of capital gains on home sales) Office of Management and Budget (2007, p. 326).”

⁶ However, the Office of Management and Budget treats as tax expenditures some features of the federal income tax that might be considered as adjustments for ability to pay, e.g. additional deductions for the blind and elderly, the tax credit for the elderly and disabled and the deductibility of casualty losses.

⁷ In certain circumstances, taxes may be specifically designed to alter economic decisions that are based on market prices, because those prices do not reflect the full cost of the item. For example, consumption of alcoholic beverages can impose costs on others, such as injuries and deaths from car accidents caused by drunk drivers: a tax on alcoholic beverages can help cover and even reduce such costs.

B. Tax expenditures and tax reform

As a policy tool, tax expenditures reflect decisions to use the tax system to pursue specified objectives, and they should be judged by their effectiveness in doing so. They should be judged by expenditure criteria rather than by whether they are consistent with standard tax principles. Tax expenditures cannot be dismissed out-of-hand simply because they provide preferential treatment to some taxpayers, distort market prices, or otherwise violate tax principles.

A listing of tax expenditures is therefore not a menu of tax reform measures, although opponents of tax expenditure budgeting often argue such will likely be the case. If tax expenditures are not effective as expenditure programs (not effective by expenditure criteria), they should be eliminated. But they should not be eliminated solely on grounds that they narrow the tax base, or distort relative prices, or complicate the tax system.

In contrast, revenue losses due *only* to failure to apply tax principles, or to apply them well, should be considered for tax reform, and should therefore be identified and estimated. But they should not be characterized as tax expenditures. For example, failure to fully update the assessed value of property until property is sold violates the principle of equal treatment of equals (horizontal equity), but it does not generate a tax expenditure.

Finally, although some might argue that the tax system should be used only to raise revenue, accepting that limitation forgoes use of a valuable policy instrument. At the same time, it should be recognized that tax expenditures can be used inappropriately – when another instrument would serve better or when no public purpose is served.

III. Tax Expenditure Estimates

Tax expenditures entail use of resources just as do direct expenditures. This resource use cannot be evaluated and controlled without estimates of tax expenditures. Comparing the relative effectiveness of tax expenditure programs and other policy instruments also requires estimates of tax expenditures.

For example, exemption of food from the gross receipts tax base is a tax expenditure; estimates of the size (cost) of this tax expenditure are needed to assess it – e.g. to compare it with food stamps, LICTR, and other means of assisting low-income persons. Similarly, the State Working Families Tax Credit is an income-support program administered through the tax system. An estimate of the resulting tax expenditure is needed to compare it with TANF (Temporary Assistance for Needy Families), an alternative income-support program that provides direct payments to low-income families.

Tax expenditures that arise from special exclusions, exemptions and deductions are estimated by multiplying the preferentially taxed components of the tax base by the prevailing tax rate(s):

$$\text{Tax expenditures} = (\text{tax rate}) \times (\text{preferentially taxed component})$$

For example, the tax expenditure resulting from the deduction of food from the gross receipts tax base is calculated by multiplying the gross receipts tax rate in each location by the amount of the food deduction for that location. For a special tax rate, the differential from the prevailing rate is multiplied by the preferentially taxed component. Tax expenditure estimates for credits are usually just the amount of the allowed credit, which either reduces taxes or is refunded.

A. Consequences of behavioral adjustments

Tax expenditure estimates do not take account of whether and how taxpayers alter their decisions in response to special tax provisions, other than changes in the tax base components that are *directly affected* by the special tax provision. Thus, they do measure the funds diverted into the preferentially favored activities, but they do not account for changes in other components of the affected tax bases or in other tax bases. Instead, tax expenditure estimates typically assume no behavioral adjustments by affected taxpayers other than shifts toward preferentially taxed components. They assume no other changes in tax bases due to changes in taxpayers' market decisions. And they assume no interactions among tax preferences; that is, they assume that use of (and tax expenditure due to) any particular tax preference is independent of the use of other tax preferences. These are the same assumptions used in measuring appropriations and other expenditures, which measure *direct* outlays of the expenditure program given that other related expenditure programs are in effect.

In contrast to these assumptions, a tax preference will usually trigger adjustments in behavior that affect revenue collections from the tax for which the preference applies as well as from other taxes. And the tax expenditures due to a particular tax preference will often depend on the existence and use of other tax preferences. Because of such adjustments in behavior, tax expenditures do not measure the budgetary (revenue) effects of adding or removing the expenditure, any more than does a line item for an expenditure in an appropriations budget measure the full impact on the budget of adding or removing the item.

This difference between the measured cost of an expenditure that is in place and the budgetary cost (or saving) if it were removed (or added) is important to understanding all expenditures, including tax expenditures. The difference arises for several reasons. Consider first the effects of market adjustments. In the case of tax expenditures, the preferentially taxed components of the tax base will expand, and would likewise shrink if preferential taxation were eliminated. Consequently, the base for which a tax expenditure is calculated is likely to be larger than the base would be if the tax preference were removed. So the tax expenditure estimate for a particular tax preference may overstate the revenue that would be gained by eliminating the preference. For example, allowing a deduction for food from the gross receipts tax base likely increased sales of food somewhat, so removing the deduction would likely cause food sales to shrink somewhat.

The addition or removal of a tax preference may also affect market decisions in sectors other than the one to which the tax preference directly applies. For example, the deduction for food may have lowered somewhat the demand for other products and services. These adjustments

may in turn affect revenues from other taxes. So when a government extends a tax preference to a particular product or service, the change in revenue from *all* taxes and *all* sectors will usually differ from the tax expenditure attributed to that tax preference.

A further issue is the effect of interdependent tax provisions, which may cause the tax expenditure due to a particular tax preference to depend on the existence and use of other preferences. For example, taxpayers itemize deductions for income tax purposes only if the total of all itemized deductions exceeds their standard deduction. Consequently, eliminating any deduction, such as the deduction for state and local taxes, would reduce the number of taxpayers who itemize. With fewer taxpayers itemizing deductions, the tax expenditures due to use of other deductions, such as the deduction for home mortgage interest, would be reduced. The revenue gain from eliminating the deduction for state and local taxes would therefore *exceed* the tax expenditure attributed to that deduction.

In sum, because of behavioral adjustments in response to tax preferences – changes in both market decisions and in the use of interdependent tax provisions – tax expenditure estimates cannot be used to calculate the total revenue gain (increase in budget surplus) from eliminating a specific tax expenditure or set of tax expenditures. So, the sum of tax expenditures does not provide meaningful information about their aggregate revenue cost. This limitation applies regardless of how baseline taxes are defined.

Again, note that these limitations apply as well to the amounts listed for appropriations in a regular budget. Whether the limitations are important for decision making depends both on the size of behavioral adjustments and the interaction effects, and how substantial the changes to expenditures under consideration are. In the typical case of incremental changes to expenditures, the limitations are unlikely to be very important.

B. Other estimation issues

Tax expenditures can be estimated as current budgetary effects or as the present value of current and future effects. Present value estimates are appropriate for tax provisions that defer tax payments into the future.

Tax preferences instituted by a state government may reduce revenues that its local governments derive from add-on taxes. For example, the food deduction from New Mexico's gross receipts tax base would have reduced revenues of local governments in the absence of the "hold harmless" provision. Such losses of local government revenues should be included in the tax expenditures attributed to a tax preference.

In sum, tax expenditure estimates are needed for legislative oversight of tax expenditure programs and as a starting point for estimating their economic effects. But they are not a guide for tax reform, or even, taken alone, for reform of tax expenditures. As explained in the following section, evaluation and reform of tax expenditures must be based on the desirability of the changes in resource allocation and income distribution they bring about.

IV. Evaluating Tax Expenditures

Tax expenditures are intended to achieve public purposes by altering the allocation of resources or the distribution of income. Estimates of tax expenditures are therefore just a starting point in their evaluation. To fully evaluate tax expenditures, we must identify and measure precisely how they change the allocation of resources and the distribution of income. Then we must determine whether these changes are an improvement over what would have occurred in the absence of the tax expenditures. Ideally, the evaluation should go a step further and determine whether the tax expenditures have brought about the *best possible* outcome.

A. Changes in the allocation of resources and the distribution of income

The first changes are those made by taxpayers in response to a tax preference. For example, an income tax credit for the purchase of solar energy equipment will offset some of the cost of this equipment, including costs incurred by taxpayers who would have purchased this equipment in the absence of the credit. It may also encourage purchase of additional equipment by persons who would not have made a purchase without the credit. Then, other changes necessarily follow from the revenue loss from the tax expenditure. In some combination, other taxes must be increased, government borrowing increased, or government spending decreased. Borrowing implies future tax increases, and it is often not an option for state governments.⁸

These direct changes generate in turn indirect changes, which play out over time and affect economic choices and sectors other than those targeted by the tax expenditure. These indirect changes are especially difficult to trace and to take into account in the evaluation of a tax expenditure. Consequently, as a practical matter, evaluations of tax expenditures often rely only on estimates of the direct changes they cause.

Determining how a tax expenditure has in fact altered resource allocation and income distribution requires estimates of how much private-sector change is induced by the tax expenditure versus change that would have occurred without the tax expenditure. That is, how much of any claimed effects of a tax expenditure reflect actions that would have been taken without the incentive it provides? Simple *before-and-after* comparisons provide inadequate answers to this question because changes following institution of a tax preference may occur for a number of reasons other than the tax preference. For example, estimating the effects of the tax credit for purchases of solar energy equipment requires an estimate of the value of such purchases that has occurred *in addition to* purchases that would have occurred in the absence of the credit. It also requires taking into account how the revenue loss due to the credit is offset, either by increases in other taxes, borrowing, or decreases in other government expenditures.

⁸ Proponents of tax preferences often argue that they will increase economic activity, tax bases, and ultimately revenues from other taxes, thus offsetting some or all revenue loss directly attributable to the tax preferences. While this is a possibility, determining whether it is in fact the case is a difficult empirical problem.

B. Evaluation criteria and process

Once shifts in the allocation of resources and the distribution of income due to a tax expenditure have been identified, they must be evaluated. The criteria for evaluating tax expenditures are the same as those applied in evaluating direct spending programs. The basic criterion for evaluating a tax (or other) expenditure is the extent to which it either increases the real incomes of the residents of the state or nation that enacts it, or makes the distribution of income in that jurisdiction fairer.

1. Income distribution effects

To the extent that a tax expenditure leads to changes in the distribution of income, intentional or otherwise, the issue to be addressed is whether those changes are fair. The underlying presumption is, of course, that the tax expenditure will improve the income distribution, or at least not worsen it.

2. Resource allocation effects

Just increasing the level of some activity, e.g. purchases of solar equipment, in a state is not sufficient justification for a tax expenditure. Instead, when a tax expenditure leads to increased production of some commodity or service, it must first be determined whether this additional production is more or less valuable than the private-sector and/or government production that is necessarily forgone as a result of offsetting the revenue loss due to the tax expenditure – through current or future increases in taxes or decreases in other expenditures. That is, does the value of production attributed to a tax expenditure exceed its opportunity cost? If it does not, the tax expenditure has made resource allocation less efficient – it has decreased the total value of production. And even if the total value of production does increase, it must be determined whether there is an even more valuable use of the resources.

A common assumption underlying tax expenditures is that the resource uses they encourage are more valuable than the uses they displace; that is, absent tax expenditures, private-sector decisions will allocate resources to inferior uses. But this assumption must be tested. For the solar equipment credit example, if the tax expenditure is offset by decreases in other government activities, then the value of those forgone activities must be weighed against the value of any increase in purchases of solar equipment. If the tax expenditure is offset by increases in other taxes, then the value of private-sector production lost because of those tax increases must be weighed against the value of any increase in purchases of solar equipment. The value lost because of higher taxes includes not only the opportunity cost of resources diverted into solar

equipment but also any increase in administrative and compliance costs and the value lost as taxpayers alter their decisions to reduce the impact of the tax increases.⁹

3. Difficulties in applying criteria

The criteria for evaluating tax expenditures are at once simple in concept and difficult to apply.

Consider first the problems that arise in evaluating a tax expenditure aimed at altering the distribution of income, for example New Mexico's Working Families Tax Credit. Funds distributed by the credit add to disposable (after-tax) income in the amount of the tax expenditure. The success of such a tax expenditure is often judged by this initial increase in income, as well as the number of persons benefiting from the credit.

But this is only part of the story. The distribution of income may also be affected by the financing of the credit – the decrease in government spending and/or increase in taxes necessitated by the credit. For example, the credit might be financed by decreases in spending programs that provide services and support to low-income persons. In that case, the gains to low-income persons would be less than the tax expenditure – the amount of funds provided by the credit.

Unfortunately, it would be practically impossible to identify the adjustments in the government budget taken to offset the revenue loss due to the credit. To do so, we would need to know how government spending and other taxes would differ if the credit were not in place.¹⁰ Further, the credit and the budget adjustments required to finance it would generate additional changes in resource allocation and income distribution. It is very difficult to estimate and evaluate these *indirect* changes.

Similar problems arise in evaluating tax expenditures that subsidize production or purchase of specific products, e.g. production of solar generated electricity and purchases of solar energy equipment. The underlying assumption is that absent a subsidy these products will be under-produced (or purchased), or not produced (or purchased) at all, because decision makers – individuals and businesses – undervalue them. That is, the products have “external benefits” –

⁹ The actions that people take to reduce their tax liabilities generate what economists term “dead-weight losses.” For example, if a product (restaurant meals) becomes relatively more expensive because it is taxed while other products (food purchased for consumption at home) are not taxed, people will reduce purchases of restaurant meals and increase purchases of substitutes (food for home consumption). The tax thus causes people to spend less on their preferred product (restaurant meals) just to reduce their tax payments. In doing so, they are worse off not just by the amount of the tax they pay but also because they are buying less of their preferred product. This second effect is the “dead-weight loss.” A more important example is the reduction in labor supply that may occur in response to an income tax or other tax on wages. Workers are in this case worse off not only because of the tax they pay, but because they are spending some of their time in less valuable, non-wage activities in order to reduce their taxes.

¹⁰ This problem could be somewhat simplified by *assuming* that only taxes are adjusted, with spending held constant. Then an assumption would have to be made about which taxes are adjusted. The effects of a number of such *assumed* adjustments could in principle be estimated. We would then have some notion of the range of effects that financing the credit might have. But we would not know which of these possible outcomes would in fact occur.

benefits not considered by private-sector decision makers when they choose how much to produce or purchase.

To evaluate tax expenditures that subsidize such products, we should determine whether external benefits exist and are large enough to justify the subsidy. For example, the tax credit for purchase of solar energy equipment should increase use of such equipment and reduce reliance on fossil fuels and their environmental costs. Many persons other than those who purchase the equipment should benefit from improvements in the environment, such as improved air quality. The value they place on the improvement in air quality – the amount they would be willing to pay for the improvement – is the external benefit generated by the tax expenditure. To determine whether the credit improves resource allocation, this external benefit must be estimated and compared to the opportunity cost of the credit. Only if the external benefit exceeds this opportunity cost is the credit economically efficient; only then does it improve resource allocation.

This example shows that while the principles to be applied in evaluating tax expenditures are clear, applying those principles is difficult. And because any evaluation must be based on assumptions that cannot be fully verified, the validity of any specific evaluation would be open to question.

The difficulties that arise in evaluating tax expenditures bring into question our ability to carry out meaningful evaluations. But these same difficulties must also be faced when appraising direct spending programs.

Ideally, evaluations should be undertaken when deciding whether to enact a tax expenditure, and periodically thereafter just as is typically done with direct spending programs.

4. Expenditure criteria, not tax reform criteria

Tax expenditures should be judged by their effectiveness in achieving the governmental objectives they are intended to promote, not by whether they are consistent with standard tax principles – not by whether they distort relative prices, distribute tax burdens unfairly, etc. For example, the tax credit for production of energy from alternative sources is intended to increase the supply of such energy, offsetting supply that would otherwise come from fossil fuel sources. This credit should be judged by its effectiveness in increasing the supply of alternative energy and not by the fact that it has changed relative prices and rates of return from their free-market values.

C. Other evaluation issues

In addition to the general considerations discussed above, other points regarding the evaluation of particular tax expenditures should be noted.

The value of a tax expenditure program is not measured by the number of beneficiaries or amount of funds dispersed (tax revenue forgone), although there is a tendency among program advocates to do so. Gains to workers from a tax expenditure should be measured by the increase in their real income (wages, salaries and benefits adjusted for inflation), not by the increase in the number of workers who qualify for the credit. Similarly, the credit for solar energy equipment cannot be evaluated simply by counting the number of homeowners and businesses benefiting.

Increasing employment is an often stated objective for special exemptions, deductions and credits for specific industries, business sizes, and business locations. It is therefore especially important to have a framework for determining and evaluating the employment effects of tax expenditures. In general, the effectiveness of the tax expenditures should be gauged by comparing the gain in workers' incomes to the opportunity cost of the tax preference. When evaluating a state's programs, the relevant gains are those accruing to workers residing in the state when the programs were implemented.

For special exemptions, deductions and credits aimed at income support, a key question is the extent to which funds supplied by tax expenditures are offset in part by labor market adjustments. For example, tax expenditures due to an income assistance program such as New Mexico's Working Families Tax Credit may appear to measure the assistance being provided. But that is the case only if the credit triggers no market adjustments that alter wages and income. If labor supply increases in response to the credit, then gains to workers fall short of the amount of the tax expenditure; some gains accrue to businesses that employ lower-wage labor and to consumers of products and services they produce.

Individuals outside the target group may benefit from a tax expenditure. For example, the deduction for food from the gross receipts tax base benefits high-income persons as well as the poor. A refundable tax credit, such as LICTR, targets low-income persons more accurately. A tax expenditure that increases in-state production and employment may benefit out-of-state persons who come into the state to take advantage of job opportunities. That employment should be separated out when evaluating the tax expenditure, since the primary purpose of the tax expenditure is to increase employment and wages of residents.

When a tax expenditure increases the value of production, revenue from other taxes may also increase. But this additional revenue represents only an allocation of the value of additional production between the public and private sectors; it is *not* an added payoff to the tax expenditure.

Since lower-income families owe little or no income tax, special income tax credits are not very effective in helping these families unless they are refundable. Similarly, unless tax credits for businesses are refundable, they lose their effectiveness when their value exceeds tax liability, which is more likely to occur when the economy is in recession and many businesses' tax liabilities may fall short of their available credits.

Income tax exemptions and deductions only have value to families with income tax liabilities (prior to the exemption or deduction). Further, the tax saving from an exemption or deduction and hence its value increases in proportion to the family's tax rate. Thus exemptions and

deductions help higher-income families more than lower-income families. For example, a refundable tax credit such as the Working Families Tax Credit aids lower-income families more than an income tax deduction with the same revenue loss would because the value of the deduction would depend on, and increase with, a family's income.

Tax expenditures resulting from the preferential taxation of nonprofit organizations should be evaluated by the same principles and criteria as tax expenditures that benefit for-profit businesses. But in many instances, nonprofits' products and services will be difficult to measure and value.

The benefits from R & D tend to be dispersed widely, throughout the nation and even world wide. So too are the payoffs to tax expenditures aimed at encouraging R & D activities. This fact makes evaluation of tax expenditures that support R & D problematic, since it will be difficult to determine the extent to which they generate benefits for residents.

D. Tax expenditures compared to other policy instruments

Evaluations of tax expenditures should not stop with analyses of their effects on the allocation of resources and the distribution of income. When objectives might also be furthered by other policies such as direct spending, tax expenditures should be compared with those alternatives to determine which is the more effective. Listed below are possible advantages and disadvantages of tax expenditures that may be relevant in such comparisons.

1. Advantages of tax expenditures

Tax systems are established and relatively low cost mechanisms for transferring funds between government, on the one hand, and individuals and businesses, including nonprofits, on the other. The proportion of individuals and businesses directly covered is greatest in the case of income taxes. That coverage can be expanded at relatively low cost, even to include individuals and businesses that do not have positive tax liabilities. Tax systems can therefore link government with most if not all individuals and businesses. Because tax expenditures can utilize the tax system's existing administrative and compliance mechanisms they have their greatest comparative advantage in implementing policies aimed either at transferring income to individuals and businesses or influencing and subsidizing their choices. For example, an advantage of the Working Families Tax Credit in comparison to direct spending on such programs as TANF and food stamps is that the credit uses an existing system of administration, compliance and enforcement.

Tax expenditures decentralize decision making about resource use. Legislation determines the criteria taxpayers must meet to qualify for a tax preference, but taxpayers decide whether and how much to respond to the preference. This decentralization may provide managerial or informational advantages. For example, individuals may have private information (information not readily available to government managers) about opportunities for applying available technology to generate electricity from wind and solar. If so, a tax preference for private

businesses that produce electricity from wind and solar is likely to be more cost-effective than a state funded and managed power company.

Government spending programs may in some cases rely less on economic incentives and private-market provision than tax expenditures, which may reduce the relative efficiency of direct government spending.

Tax expenditures may respond more readily to changing activity levels and economic conditions than spending programs.

When the goal is to change private behavior, tax expenditures are likely to dominate direct spending. For example, tax expenditures are likely to be more effective than direct government spending in encouraging production and purchase of energy efficient housing and appliances.

2. Disadvantages of tax expenditures

A potential advantage of tax expenditures, noted above, is that individuals and businesses decide what actions to take in response to a tax preference. This can also be seen as a disadvantage, since it adds to the difficulty of predicting the effect of a tax expenditure. For example, at the time legislation is enacted, it is difficult to predict the effect of a tax expenditure aimed at increasing production of solar generated power. The resource allocation and budgetary effects of such legislation emerge only as taxpayers respond to the tax preference.

Unless a tax expenditure has an expiration (“sunset”) date, it continues indefinitely – until action is taken to repeal it. A tax expenditure thus entails an open-ended commitment of resources. In contrast, a direct spending program normally continues only if funds are appropriated for each budget period. Tax expenditures do not receive the year-to-year oversight and fine tuning that direct spending programs often receive through legislative and executive budget processes. Except for estimates of revenue loss, data and reports on overall effects of tax expenditures are not routinely available. Gathering such data is costly both to governments and to the beneficiaries of tax expenditures. Further, analyses of the effects of tax expenditures are difficult for reasons discussed above. In particular, analyses must separate out what would have been done in the absence of the tax expenditures. However, it is also true that many of the problems met in analyzing the effects of tax expenditures also arise when assessing the consequences of direct spending programs.

Tax expenditures typically do not allow as much discretion and flexibility as a spending program. Spending programs allow targeting by business type, geographic area, income level, etc. Writing such detailed targeting into taxes greatly complicates them.

The effectiveness of tax expenditures for pursuing income transfer objectives is limited by the fact that income tax returns do not require information on characteristics, such as wealth, that are used in some spending programs. Consequently, a disadvantage of tax expenditure programs such as the federal EITC is that they cannot take direct account of asset positions of those

assisted.¹¹ Also, spending programs may be specifically designed to assist low-income families who would not otherwise be subject to income taxes or need to file a tax return. Note, however, that New Mexico's income tax does cover virtually all residents because of broad-based refundable credits such as LICTR and the Working Families Tax Credit.

Tax expenditures add to the complexity of the tax system, which raises both administrative and compliance costs. Special exemptions, deductions, credits, and phase-outs complicate filing and administration.

Tax expenditures are not well suited to providing public goods, such as public safety and a judicial system, that cannot be produced through individual action.

3. Alternative policy instruments in practice

The need to compare tax expenditures with other policy instruments that might be used to promote a given objective is further illustrated by policy areas in which both tax expenditures and other instruments have been used.

College education

- Direct spending on state colleges and universities.
- Federal tax credit and deduction for tuition paid; federal and state exemptions for earnings on college savings plans.
- Student loans and loan guarantees.

Worker training and back to work

- Direct spending on worker training and placement programs (such as JTIP).
- Tax incentives for employers to hire and train workers.
- Federal EITC and State Working Families Tax Credit.
- Federal and state tax credits for child day care.

Income maintenance and support

- Direct spending on TANF and food stamps.
- Federal EITC and State Working Families Tax Credit.
- Deduction for food from the gross receipts tax base.
- Minimum wage (regulatory).

Health care

- Direct spending on public hospitals and clinics, health education, and health care research.
- Publicly-provided health insurance, such as Medicare and Medicaid

¹¹ However, the EITC does this indirectly through an eligibility limit based on certain income from assets, such as interest and dividends.

- Exclusion of the value of employer-provided health insurance from federal and state income taxes.

Environment/global warming

- Direct spending on rail and bus systems to reduce reliance on automobiles.
- Direct spending on power transmission infrastructure to facilitate use of solar and wind generated electricity (State Renewable Energy Transmission Authority (RETA)).
- Credits for production of alternative energy (State Renewable Energy Production Credit).
- Credit for energy efficient buildings and appliances (State Sustainable Building Credit and Solar Market Development Tax Credit).

V. Tax Expenditure Analysis by Federal and State Governments

The tax expenditure concept was broadly introduced by Assistant Secretary of the Treasury for Tax Policy Stanley Surrey in 1967. The idea caught on. Since 1974, the Congressional Budget Office (CBO) and the U.S. Treasury Department have been required to prepare and publish tax expenditure estimates annually. The CBO has relied on the staff of the Joint Committee on Taxation (JCT) to prepare its annual tax expenditure estimates. The Congressional Research Service and other federal organizations have also used the tax expenditure concept in tax policy analyses.

Following the lead of the U.S. federal government, other national governments and a growing number of state governments now publish tax expenditure estimates on an ongoing basis. This section first discusses some of the main issues that have arisen in connection with tax expenditure analysis at the federal level. Then it briefly surveys state-level use, focusing on several states in which publication of detailed tax expenditure budgets is an established practice.

A. Federal tax expenditure analysis

Each year the U.S. Treasury estimates tax expenditures for the federal individual and corporate income taxes using two baselines: a normal tax baseline and a reference tax baseline. Both baselines are patterned on a comprehensive income tax, but the reference tax baseline is more closely tied to existing law.¹² Both baselines differ from a comprehensive income tax in important ways. For example, income is taxed only when realized in exchange; capital gains are taxed when realized rather than when accrued; the baselines include a separate tax on corporate income; values of assets and debt are usually not adjusted for inflation.

An appendix explains in more detail how tax expenditures listed in the tax expenditure budget differ from those implied by comprehensive income and comprehensive consumption baselines (Office of Management and Budget, 2007, pp. 315-322).

¹² See Office of Management and Budget (2007, pp. 296-297) for more explanation of how the two baselines differ.

What has been the effect of publishing these estimates? On the one hand, there is little evidence that publishing tax expenditure estimates has increased control over or curtailed use of tax preferences, which Surrey put forward as one of the primary rationales for tax expenditure analysis. The JCT staff's first description of tax expenditures in 1972 listed 60 items while its 2007 publication, using the same methodology, listed 170 tax expenditures JCT (2008a, p. 4). But tax expenditure analysis appears to have served the second purpose suggested by Surrey; it has been applied in tax policy and tax distributional analysis.¹³

1. The Joint Committee on Taxation critique

The continuing growth of federal tax expenditures has given impetus to several recent critiques of tax expenditure analysis.¹⁴ Perhaps the most thorough is the report, JCT (2008a), prepared by the staff of the Joint Committee on Taxation. This report questions the utility of tax expenditure analysis as currently implemented by the JCT. It first reviews the history of tax expenditure analysis beginning with the concept as originally introduced by Stanley Surrey in 1967. It then argues that tax expenditure analysis no longer serves as “an effective and neutral analytical tool for policymakers ... because the premise of the analysis (the validity of the “normal” tax base) is not universally accepted.” The JCT sees the usefulness of tax expenditure analysis today as being undercut by the ongoing debate about what should and should not be included in the normal or baseline tax base.

The JCT report (2008a, p. 9) then develops a revised classification system that divides tax expenditures into two categories: *tax subsidies* and *tax-induced structural distortions*. It defines a *tax subsidy* as a “specific tax provision that is deliberately inconsistent with an identifiable general rule of the present tax law (not a hypothetical “normal” tax), and that collects less revenue than does the general rule.” It also defines a *negative tax subsidy* as an exception that deliberately overtaxes compared to the general rule. The report acknowledges that the resulting baseline for identifying tax subsidies corresponds closely to the “reference tax” baseline used by the Treasury Department in its tax expenditure analyses.

The report defines (p. 10) *tax-induced structural distortions* as “structural elements of the Internal Revenue Code (not deviations from any clearly identifiable general tax rule and thus not tax subsidies) that materially affect economic decisions in a manner that imposes substantial economic efficiency costs.”

¹³ JCT (2008a, p. 6) argues that tax expenditures are primarily a tool of tax policy: “... there is scant evidence that tax expenditure analysis has succeeded in its first mission of expenditure control. That does not mean, however, that tax expenditure analysis has failed, but rather that its principal utility appears to have been as a tool of tax policy and tax distributional analysis. The rhetoric of tax expenditure analysis, and the economic reasoning that underlies that rhetoric, in fact can provide a successful framework by which to judge the fairness, efficiency and administrative consequences of many incentive proposals. Policymakers further can look to tax expenditure analysis to provide insight into base broadening and similar measures.”

¹⁴ JCT (2008a), JCT (2008b), JCT (2008c), and Burman (2003). A number of papers on tax expenditures were presented at the NBER Conference, “Incentive and Distributional Consequences of Tax Expenditures,” held in Bonita Springs, Florida, on March 27-29, 2008. Among those papers, Carroll et al (2008) deals most directly with issues arising in the analysis of federal tax expenditures.

The claimed advantage of this approach is that it does not rely on a hypothetical normal tax to determine what constitutes a tax expenditure and does not hold up that normal tax as guide for tax reform. The report concludes (p. 9) that “The result should be a more principled and neutral approach to the issues.”

But JCT (2008a) does not address in detail nor does it resolve the question of why its proposed baseline is “more principled and neutral” than a hypothetical normal tax. Whether that is in fact the case is an open question. Indeed, there is likely substantial leeway for debate on when a tax provision is “deliberately inconsistent with an identifiable general rule of the present tax law,” and consequently the source of a tax expenditure.

The results of applying the new approach advocated by JCT can be seen in its estimates of federal tax expenditures for fiscal years 2008-2012 (JCT (2008d)).

2. Other critiques

Carroll et al. (2008) compare income and consumption baselines for defining and calculating federal tax expenditures. Specifically, they discuss how the major tax expenditures reported in the Tax Expenditures chapter of Office of Management and Budget (2007) would be classified first using a comprehensive income tax baseline and then using a comprehensive consumption tax baseline. But they do not try to resolve the question of whether the baseline should be consumption or income. And they do not attempt to settle the debate over whether tax expenditures are a useful concept.

Burman (2003) reviews a number of the issues that arise in the estimation and use of tax expenditures including criticisms that arose in the early years of the G.W. Bush administration. He concludes that estimates of tax expenditures continue to be useful in managing the size and scope of the federal government.

B. State-level tax expenditure analyses

As states have made increasing use of tax expenditures they have also increased tax expenditure estimation and reporting. A number of states now have statutes that require periodic tax expenditure reports. States have by and large followed the federal example in estimating tax expenditures. In doing so, they usually express the caveats noted above; namely that estimated tax expenditures 1) do not take account of behavioral adjustments (i.e., assume current behavior, as is done for direct expenditure estimates), 2) are not estimates of the revenue that could be gained by eliminating tax preferences, and 3) cannot be aggregated to get a total revenue loss from a set of tax preferences.

States typically estimate tax expenditures for all of their major taxes, not just personal and corporate income taxes. And they often estimate tax expenditures due to preferences in local taxes. Another common practice is to include in tax expenditures revenue losses due to exemptions and deductions aimed at adjusting the tax base for ability to pay. As explained

above, these are not tax expenditures as defined in this Report. Similarly, losses incurred to reduce administration and compliance costs are often included in states' estimates of tax expenditures, but are excluded from this Report's concept of tax expenditures.

Detailed description of state-level tax expenditure reporting is beyond the scope of this report. Instead, we present brief overviews of the reports prepared by California, Massachusetts, Minnesota, Nebraska, New York, and Oregon. These reports are fairly representative of practices in states that prepare reports on a regular basis. By and large, states define tax expenditures as they are defined in this report. And their reports identify the same estimation and evaluation issues that are discussed above.

1. California

California's Legislative Analyst's Office (2007, 2008) prepares a report regarding tax expenditure programs defined as features of the tax code – exclusions, exemptions, deductions and credits– that enable a “targeted set of taxpayers to reduce their taxes relative to what they would pay under what policymakers perceive to be a “basic” or “normal” tax-law structure.” Individual tax expenditure programs “have been adopted for a variety of reasons, but most exist in order to encourage certain types of behavior by individuals and/or businesses or to provide financial assistance to certain taxpayers.” The report is intended both to provide information on newly enacted tax expenditure programs and to review selected existing programs for their effectiveness and efficiency.

2. Massachusetts

Massachusetts (Massachusetts Governors Office (2008)) is mandated by law to provide annual estimates of tax expenditures defined as “provisions in the tax code, such as exclusions, deductions, credits, and deferrals, which are designed to encourage certain kinds of activities or to aid taxpayers in special circumstances.” Tax expenditures are estimated for the personal income tax, the corporate excise, and the sales and use tax. The report clearly sees tax expenditures as alternatives to direct spending: “the fiscal effects of a tax expenditure are just like those of a direct government expenditure. Some tax expenditures involve a permanent loss of revenue, and thus are comparable to a payment by the government; others cause a deferral of revenue to the future, and thus are comparable to an interest-free loan to the taxpayer. Since tax expenditures are designed to accomplish certain public goals that otherwise might be met through direct expenditures, it seems reasonable to apply to tax expenditures the same kind of analysis and review that the appropriations budget receives.”

3. Minnesota

Minnesota is required by statute to submit a tax expenditure budget in even numbered years for every state tax and any local tax that is applied statewide (Minnesota Department of Revenue, 2008). The purpose of the report is to “provide information to facilitate a regular, comprehensive

legislative review of state and local tax expenditure provisions. Tax expenditure provisions are identified and listed in the report, along with the legal citation, explanation, history, and fiscal impact for each provision.”

Minnesota applies seven criteria to determine whether a provision is a tax expenditure, all of which must be met for a provision to be termed a tax expenditure. Specifically, “a provision is a tax expenditure if it:

- has an impact on a tax that is applied statewide;
- confers preferential treatment;
- results in reduced tax revenue in the applicable fiscal years;
- is not included as an expenditure item in the state budget;
- is included in the defined tax base for that tax;
- is not subject to an alternative tax; and
- can be amended or repealed by a change in state law.”

This last requirement rules out classifying as tax expenditures those revenue losses that result from adopting the federal measure of taxable income – “piggybacking” on federal tax law.

4. Nebraska

The Nebraska Department of Revenue is required by statute to publish a tax expenditure report in even numbered years to enable the Legislature to better determine those sectors of the economy that are receiving indirect subsidies as a result of tax expenditures. The report (Nebraska Department of Revenue (2008)) defines a tax expenditure “as a revenue reduction that occurs in the tax base of the state or a political subdivision as a result of an exemption, deduction, exclusion, tax deferral, credit, or preferential rate introduced into the tax structure.” Nebraska’s report estimates tax expenditures for all state and local taxes that generate annual revenue in excess of \$2 million.

5. New York

New York State Division of Budget (2008, p.3) defines tax expenditures as “features of the Tax Law that by exemption, exclusion, deduction, allowance, credit, preferential tax rate, deferral, or other statutory device, reduce the amount of taxpayers’ liabilities to the State by providing either economic incentives or tax relief to particular classes of persons or entities, to achieve a public purpose.” The report states that this “definition is less subjective than an approach that defines tax expenditures by first defining a normal tax structure because it avoids judgments about what constitutes normal.” The report does not claim to provide a complete list of tax expenditures. Instead, it describes as many tax expenditures as can be isolated and measured. Where data are available, estimates cover five historical years.

The report for 2009 is the eighteenth annual report. Tax expenditures are estimated for all major taxes: personal income tax, corporate franchise tax, bank tax, insurance tax, corporation and utility taxes, sales and use tax, petroleum business tax, and real estate transfer tax.

6. Oregon

Oregon prepares a biennial Tax Expenditure Report (Oregon Budget and Management Division. 2007). It defines a tax expenditure “as any law of the Federal Government or of this state that exempts, in whole or in part, certain persons, income, goods, services, or property from the impact of established taxes, including, but not limited to tax deductions, tax exclusions, tax subtractions, tax exemptions, tax deferrals, preferential tax rates, and tax credits.”

The most recent report, for 2007 – 2009, states that tax expenditures amount to approximately 50 percent of total state and local spending. Property tax exemptions, primarily for personal and government property, are by far the largest component of Oregon’s tax expenditures, accounting for over 60 percent of the total. These exemptions would not be considered a source of tax expenditures under our definition of tax expenditures, but rather a structural issue in the property tax. More generally, Oregon defines tax expenditures more broadly than this report by including revenue losses from tax code provisions that simplify or reduce the costs of tax administration or prevent one government from taxing another. Oregon identifies tax expenditures that are scheduled for sunset in the biennium.

VI. Summary

Both the federal and state governments have introduced numerous tax expenditures into their tax codes to pursue a wide range of objectives. Many states have begun estimating tax expenditures and publishing regular reports or tax expenditure budgets. Preparing and using such reports requires understanding of the tax expenditure concept.

Tax expenditures have two broad purposes. One is to provide incentives and funding for private-sector decision makers to engage in activities that policymakers see as serving public purposes, e.g. entering the work force or purchasing solar energy equipment. The other is to provide resources to taxpayers who have specified characteristics or are in particular circumstances, e.g. low-income workers and the elderly.

Tax expenditures are determined by tax code provisions that disburse funds to (reduce the tax liabilities of) taxpayers who meet specified criteria. They are an alternative to direct spending or other policy instruments. And they absorb tax revenues and reduce a government’s budget surplus just as direct expenditures do. But they differ from direct expenditures in that they are defined by tax codes and administered by revenue departments.

Tax expenditures can be defined and measured only with reference to a baseline tax, which defines taxpayers’ liabilities absent any tax preferences. Baseline taxes define the revenue raising (or purely tax) part of the tax code. Tax expenditures are deviations from the baseline tax system.

A tax expenditure should be evaluated by the same criteria as a direct spending program. These criteria can be stated as three questions. Does the tax expenditure lead to a more equitable distribution of income? Does it shift public and private production from less valuable to more valuable products? Does it in the final analysis increase the real incomes of the state's residents? Although the questions that must be answered to evaluate a tax expenditure are clear, answering them requires analysis of difficult-to-obtain and difficult-to-interpret data. If not effective by these expenditure criteria, a tax expenditure should be eliminated. But it should not be eliminated solely because it is a departure from a baseline tax or because it violates standard tax principles.

A tax expenditure budget makes programs more visible and more likely to be evaluated or reconsidered. But it is not a guide to tax reform. Nevertheless, preparing a tax expenditure budget is sometimes opposed on the grounds that it will be seen as a listing of tax system failures that need to be remedied.

Although some might argue that a state's tax system should be used only to raise revenue, accepting that limitation forgoes use of a valuable policy instrument. At the same time, it should be recognized that tax expenditures can be used inappropriately – when other instruments would serve better or when they serve no public purpose. A tax expenditure budget may help prevent such inappropriate use.

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