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Reducing the Deficit Through Better Tax Policy

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PAPER SUMMARY

Deficit reduction cannot all come on the spending side of the budget; some changes to tax policy are necessary to bring budget deficits under control. This paper discusses five broad areas of change to tax policy and recommends adjustments that will reduce the deficit in the next five years. Improving the collection of taxes that are owed by providing additional resources for enforcement, reforming the tax code, and improving voluntary compliance could bring in an additional \$30 billion to \$40 billion in revenue each year. Broadening the tax base by reducing tax expenditures will add between \$250 billion and \$300 billion a year to revenues. Implementing an environmentally motivated tax policy that achieves a reliable double dividend of both improving environmental quality and reducing the deficit could increase receipts by \$30 billion to \$50 billion per year. Adjusting tax rates, particularly at the top of the income distribution, through a partial rollback of the 2001 to 2004 tax cuts brings in between \$60 billion and \$80 billion per year. Another option, should implementing a package with all of these changes prove too difficult, is to institute a value-added tax to help rein in the deficit. A 10 percent value-added tax could raise an additional 4 to 5 percent of gross domestic product in revenue.

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Introduction

The enormous fiscal challenges associated with the impending retirement of the baby boomers will require several hundreds of billions of dollars per year over the next decade in order to move away from the current unsustainable trend in the federal debt. Although the longer-run pressures on the federal budget come primarily from the entitlement spending programs, deficit reduction strategies cannot come solely, or even primarily, from spending.

First, new sources of revenue will be needed to fund rapidly increasing government spending on retirement and health care. The projected increases are huge and unavoidable as they stem from the aging of the population (a demographic fact), coupled with steeply rising per-capita health care costs (at least some of which is probably inevitable). It is thus unrealistic to expect that government spending as a share of the economy will remain at its historical average, so taxes as a share of the economy will have to increase as well. Exactly how much depends on the priorities of American society—once we decide how much we are willing to spend, we have to be willing to pay for that spending with more revenues.

Second, new revenues would make it easier to address the deficit sooner rather than later, so that reckless policies and the curse of compound interest stop digging the fiscal hole deeper. While fundamental reforms to the long-run entitlement programs are necessary, they will not come quickly enough, and it will be difficult to accomplish such reforms in a revenue-neutral, let alone a revenue-increasing, way. Potential cuts to discretionary spending might be an easier way to chip away at the budget, but those changes are just too small to have much of an effect on the deficit and are more difficult to maintain over the longer run.

Most policymakers neglect to consider the tax side of the budget when focusing on how spending can be cut. Yet tax cuts and tax preferences worsen the deficit just as increases in discretionary or mandatory spending do. There is no such thing as a free tax cut, so tax proposals should be considered in terms of their relative costs and benefits just as spending proposals are.

This paper proposes some changes to the tax side of the budget that would reduce substantially—or even eliminate—the budget deficit. At the same time, these tax changes would be beneficial to the economy, not only due to the directly positive macroeconomic effects of deficit reduction and higher national saving, but also through improved efficiency in how society's resources are allocated. Federal revenues can indeed be enhanced at the same time that economic efficiency and growth are encouraged, and policies can be designed to satisfy the desire for fairness as well. In this paper I consider how to do this with a general strategy of first broadening and expanding the tax base—yielding a significant amount of revenue and a more efficient and neutral base without having to raise rates—and then adjusting rates in a relatively efficient and equitable way in order to raise additional revenue.

Recommended Tax Policy Changes

The tax changes proposed in this paper fall into five main categories:

• First, improving the collection of taxes that are (already) legally due—that is, pursuing strategies to reduce the "tax gap." There are ways that the Internal Revenue Service (IRS) could use its current level of funding more efficiently to increase compliance and

the revenue yield, but additional resources may be necessary and could produce substantial net increases in revenue.

- Second, broadening the tax base by reducing tax expenditures. Revenue-raising proposals analyzed by the Congressional Budget Office (CBO), including changes to the individual income, corporate income, and Social Security (payroll) taxes, will help realize these tax changes.¹
- Third, moving toward environmentally motivated tax policy, including a new broadbased energy tax that would discourage consumption of fossil fuels in order to reduce global warming and energy dependence—as well as the deficit.
- Fourth, adjusting tax rates, especially at the top of the income distribution where inequality has increased. The tax cuts from 2001 to 2004 significantly reduced effective tax rates on overall personal income, capital gains and dividends income, and the value of estates. Weighing the benefits of the tax cuts against their costs, I propose returning effective tax rates to somewhere *between* pre-2001 law and the fully phased-in version of the tax cuts. Because the 2001 to 2004 tax cuts forced millions more households onto the alternative minimum tax (AMT), any fiscally responsible revisiting of the tax cuts should also involve some sort of permanent fix to the AMT.
- Fifth, considering an add-on value-added tax as a longer-run, broad-based option that can provide the additional revenues needed to fund inevitably higher health costs in the future.

Recommendations in this paper are based on economic merit in terms of revenue potential, economic efficiency, and fairness. The revenue figures cited in this paper are based on standalone estimates and do not account for any interactions among the proposals. In general, however, the lack of interaction factors implies the total revenue potential reported here is likely biased *down*ward, because a given tax rate increase would raise more revenue under a broader tax base, and a particular provision that broadens the tax base would raise more revenue under higher rates.

Improving the Collection of Taxes that are Owed

Collecting the taxes that are already owed under current law is one way to increase revenue take without changing federal law. The magnitude of owed taxes that are not collected—the tax gap—is staggering.

The gross tax gap is the difference between the taxes that are lawfully owed for a given time period, and the taxes that are voluntarily reported and contributed. For tax year 2001, this gap has been estimated at \$345 billion, with an overall noncompliance rate of 16.3 percent. (The noncompliance rate has remained in the 16 to 19 percent range for several decades and is not much lower than in other countries where higher marginal tax rates provide more incentive to evade.) Even after late payments and enforcement actions, the net tax gap was \$290 billion in $2001.^2$

In other words, the magnitude of the tax gap approaches the record-high federal budget deficits of recent years (in the \$300 billion to \$400 billion range). It is tempting to speculate that most of the budget deficit could be eliminated by closing the tax gap, but such hope is unrealistic given the largely mysterious nature of the gap. Some tax policy experts believe that around 10 percent (or \$30 billion to \$40 billion) of the tax gap could be retrieved without fundamentally changing the role of the IRS in the lives of Americans, but IRS officials (who probably have an incentive to inflate the potential revenue take that could come with additional IRS funding) have suggested that up to one-third of the gap (about \$100 billion) could be recouped.³ Whatever the exact magnitude, a potential revenue gain in the tens of billions of dollars per year—even if not enough on its own to eliminate the deficit—is certainly worth pursuing.

Citizens and policymakers should be concerned about the tax gap not only from an inefficiency or loss-of-revenue standpoint, but because it is an unfair feature of the tax system. First, noncompliance creates a substantial degree of horizontal inequity across taxpayers—between those who comply and those who do not. As Nina E. Olson, the National Taxpayer Advocate appointed by the Secretary of the Treasury, recently testified, the size of the tax gap equates to "the average tax filer [paying] a 'surtax' of some \$2,000 per year to subsidize noncompliance."⁴

In addition, the distribution of noncompliance across income categories implies a vertical inequity—with higher-income households hiding (intentionally or not) larger fractions of their income from the IRS. The net misreporting percentage for wages and salaries (which comprise the largest share of income for lower- and middle-income households) is a mere one percent, reflecting the importance of information reporting and withholding by third parties like employers. Less visible forms of income, such as capital gains and income from self-employment, are subject to much higher rates of misreporting and are the forms of income more concentrated at the upper end of the income distribution. (In 2001, only 8.7 percent of the total returns filed with the IRS—11.3 million out of 130.3 million total returns—contained taxable net gains on the sale of capital assets.⁵)

The perceived unfairness of the tax gap may in fact contribute to its size. Public perception of rampant tax evasion might induce a downward spiral of decreasing compliance, as honest taxpayers become frustrated with the inherent injustice of a tax system with substantial noncompliance and imperfect enforcement. This, in turn, would potentially necessitate more aggressive and invasive enforcement efforts and thus promote further distaste for the IRS. Economists Steven M. Sheffrin and Robert K. Triest find evidence that perceiving other taxpayers as dishonest promotes further noncompliance.⁶

Despite concern about the tax gap, the understanding of its nature, size, scope, and causes is substantially limited. Throughout the 1990s, the IRS did not have a major program to measure taxpayer compliance; the last program to do so was halted in 1988 out of concern for the burden it placed on audited taxpayers. In tax year 2001 the IRS launched a new comprehensive effort to measure the tax gap, the National Research Program (NRP), that is substantially less invasive than the prior program.⁷ Corporate compliance is a focus of an ongoing NRP study that particularly examines S corporations, which have proliferated in recent years, but the NRP has not yet updated estimates of noncompliance related to business income. An April 2006 report by the Treasury Inspector General for Tax Administration cautioned that the current estimate of the tax gap relies on compliance rates for corporations that were estimated in the mid-1980s.⁸

Sources of the Tax Gap

The tax gap can arise from intentional tax evasion or from unintentional errors like simple math errors or errors due to lack of information or lack of comprehension. In expert testimony, the IRS acknowledged that they do not have enough data to clearly distinguish among these causes.⁹ But for some of the largest components of the tax gap, further analysis suggests policy solutions that would help in narrowing both the willful and unintentional parts of the tax gap, as well as in providing strong clues as to where policy changes would be most fruitful.

There are three main types of noncompliance comprising the tax gap: underreporting, underpayment, and non-filing. Of these, underreporting within the individual income tax is by far the largest component, accounting for 57 percent of the gross tax gap (\$197 billion), with understated net business income (underreported receipts and overstated expenses) making up more than half of underreported individual income tax.¹⁰ Underreported employment taxes are the second-largest component of the tax gap, at \$54 billion (16 percent), with self-employment taxes accounting for nearly three-fourths of that component (\$39 billion). IRS estimates indicate that underpayment and non-filing, across *all* types of federal taxes, account for only \$60 billion (17 percent) of the tax gap.

Figure 1 shows the IRS's map of the tax gap, with estimates from the NRP in 2002, based on a sample of 46,000 tax returns and supplements to return data. This first NRP study focused on individual income tax returns only, so estimates of compliance with the other federal taxes are still based on previous studies (1988 or earlier).

Figure 1. Tax Year 2001 Federal Tax Gap

(in billions of dollars)



Source: Reproduced from IRS, 2006.

The most recent IRS estimates of the components of the tax gap (for 2001) are little changed since the last IRS compliance study (in 1988) and show that the amounts least likely to be misreported on tax returns are subject to third-party information reporting and withholding, suggesting these are the key determinants and potential policy levers on which to focus. The most visible category of taxable income—with substantial information reporting and withholding—is wages and salaries, and that category has a tiny net misreporting percentage of 1.2 percent. The categories with only partial information reporting (such as capital gains) have a misreporting percentage of 8.6 percent, and more than half of income that is not subject to withholding or third-party information reporting (e.g., sole-proprietor income) goes unreported (see figure 2).

That most of the tax gap is explained by a lack of withholding and/or third-party information reporting is consistent with either the intentional evasion of taxes (cost of cheating is lower) or unintentional underreporting and noncompliance (due to lack of information or misunderstanding of tax laws). It suggests that regardless of the reason, which is hard to determine from the insufficient data IRS collects on the tax gap, a policy prescription that involves increasing third-party withholding and/or information reporting is most likely to be a net revenue raiser, especially if such information is relatively easy and cheap to collect and provide.

In theory, knowing the sources and causes of the tax gap would allow policymakers and the IRS to re-design tax law and administration in order to achieve the greatest tax gap reduction



Figure 2. Individual Income Tax Underreporting Gap

Source: Reproduced from IRS, 2006.

at the lowest cost (i.e., to maximize the marginal revenue collected per additional dollar spent on the effort). Unfortunately, in practice the IRS has not collected data that are detailed enough to address this question of where, at the margin, additional resources could be used most efficiently. Instead, the return on IRS investments is based on average, not marginal, returns, which the Government Accountability Office (GAO) characterizes as "rough measures."¹¹

The IRS cites an average return on investment of 4:1—suggesting that for every \$1 of funding for enforcement efforts, it collects \$4 in revenue. But the average return varies widely by type of enforcement action (e.g., matching self-reported income to amounts on information returns yields a very high average return of 32:1), and any average return does not necessarily reflect the likely revenue take from additional enforcement efforts.

In 2002, then–IRS Commissioner Charles O. Rossotti estimated that a \$2.2 billion funding increase would allow the IRS to work the known (but not pursued) examination and collection compliance cases and would yield an extra \$30 billion in revenue.¹² That assumes a much higher marginal return than the average return of 4:1, which is plausible but not empirically supported. Marginal returns are likely to diminish with additional dollars spent as well; the easiest, cheapest parts of the tax gap would be (or at least should be) addressed first.

Recommendations for Reducing the Tax Gap

Addressing the tax gap requires first acknowledging the fact that the gap exists because of both intentional tax evasion and unintentional noncompliance. A general strategy to address willful evasion is to pursue policies that increase taxpayers' perceived or actual marginal cost of evasion (such as increasing audit activities and penalties), and decrease the taxpayers' perceived or actual marginal benefit of evasion (such as decreasing marginal tax rates). To increase compliance among taxpayers who unintentionally fail to pay their full tax bills, the costs of compliance need to be reduced—for example, by making the tax law simpler and easier to understand, or by providing more information.

Estimating gross and net tax gaps is difficult enough. Determining what might be an achievable reduction in the tax gap is perhaps even more difficult because it depends on understanding the behavioral responses of taxpayers to greater information (about their own financial and tax situation), to greater understanding of tax law (perhaps through a simpler system), and/or to changes in enforcement actions—as well as more fundamental behavioral factors such as how risk-averse or short-sighted people are even under current policies. Still, even the limited understanding of the major sources of the tax gap suggests that some of the following proposals would effectively narrow the gap and increase revenues.

Provide the IRS with additional enforcement tools

Congress has exhausted most opportunities to impose third-party reporting requirements and mandatory withholding. However, a few opportunities remain for obtaining reliable third-party information reporting without imposing substantial burdens on the affected populations.

1. *Require brokers to report adjusted cost-basis for securities transactions.* Shortfalls in capital gains revenue currently deprive the U.S. Treasury of at least \$17 billion in revenue per year, with some experts suggesting the annual tally could be as high as \$25 billion.¹³ Analysts broadly concur that increased reporting of cost basis by third parties (such as the brokers, who are neither the buyer nor the seller) would enable the IRS to

electronically validate all securities-related capital gains realizations, with limited additional resources. In spring 2006, Senator Evan Bayh introduced a bill that sought to implement third-party reporting of cost basis for securities-related transactions subject to capital gains taxation. IRS Commissioner Mark W. Everson and Taxpayer Advocate Olson both gave their blessing to the bill and the GAO essentially endorsed the bill, noting that numerous brokers already compile adjusted basis information for their clients and a system already exists for transferring basis information across brokers.¹⁴ Due to the complexity in calculating adjusted basis, the GAO reports that a substantial proportion of individuals erroneously *under*state their cost basis, sending more money into federal coffers than is required. Thus, this bill would not only work to collect revenue that is lawfully owed, but would also ease compliance burdens for those taxpayers who struggle to accurately calculate their adjusted basis. A recent Joint Committee on Taxation report also suggests that requiring brokers to report basis is a promising and low-cost way to reduce the tax gap.¹⁵

- 2. Subject corporate taxpayers (including S corporations) to the same reporting requirements for miscellaneous income to which unincorporated businesses are already subject. Under current law, a corporate taxpayer can escape information reporting requirements on income received for its services by indicating such services were part of its corporate business. Since 1997, Congress has required federal agencies to provide information returns on payments made to contractors, but payments made by other entities to corporate contractors are still exempt.¹⁶ Both the IRS and the GAO argue that this reporting exemption has led to lower levels of tax compliance among small corporations, and thus both the GAO and Taxpayer Advocate Olson recommend that corporations be subject to the same third-party information reporting requirements as unincorporated businesses are.¹⁷
- 3. Require tax withholding and more or better information return reporting on payments made to independent contractors, and additionally, require businesses to report separately on their tax returns the total amount of payments to such contractors. The Treasury Inspector General for Tax Administration reports that each year more than 40 percent of the total tax gap (\$130 billion) is attributable to underreporting among individuals with business income. Independent contractors report 97 percent of income appearing on information returns, while contractors not receiving returns report only 83 percent of income.¹⁸ The Inspector General and the GAO have recommended mandating withholding on non-employee compensation payments, such as those provided to independent contractors.¹⁹ National Taxpayer Advocate Olson recommends authorizing voluntary withholding between independent contractors and their service recipients.²⁰

Devote additional resources to targeted expansion of IRS enforcement

The IRS is dramatically understaffed. The number of IRS employment enforcement personnel declined from approximately 22,000 at the beginning of 1996 to roughly 14,000 at the end of 2005, amounting to a 35 percent decrease.²¹ Two tax experts write that in other wealthy countries, "tax administrations operate at a staff-to-population ratio of about 1 to 840. The IRS figures are, if our information is right, roughly 1 to 2,900. While undoubtedly the IRS is one of the most efficient tax administrations in the world, it is not likely three times as efficient!"²²

The IRS has repeatedly suggested that minimal increases in their funding would pay off directly and substantially, because they would at least be able to better follow-up on the noncompliance they already see and identify. As noted earlier, the IRS has claimed that a \$2.2 billion funding increase would yield an estimated \$30 billion in revenue, by allowing the agency to take enforcement actions against these potentially noncompliant, already identified, taxpayers.²³

In addition to the direct revenue yield from additional enforcement, the indirect payoff could be even bigger. For example, the average audit has been estimated to increase voluntary compliance by a factor of six to twelve times the dollar amount collected from direct enforcement.²⁴

Of course, the success of additional audits depends on the prevalence of false negatives (does the IRS fail to uncover noncompliance in the course of an audit, when substantial noncompliance exists?).²⁵ Moreover, the success of additional enforcement resources depends on targeting funds toward their most highly valued use, which can be done by better use of information technology to provide the IRS with better tools for early detection, better case selection, and better case management.

Improve voluntary compliance

To address the segment of the tax gap that arises from unintentional noncompliance, the National Taxpayer Advocate recommends several proposals to make it easier for taxpayers to comply.²⁶ A few examples are:

- 1. Better automating the payment of taxes through expanding the use of the Electronic Free Transfer Payment System, sending letters to self-employed taxpayers to remind them about estimated tax payments, and promoting the use of automatic withdrawals.
- 2. Encouraging voluntary withholding arrangements by having the IRS agree not to challenge the businesses' classification of their workers (as employees or independent contractors) who participate in such withholding arrangements.
- 3. Educating cash economy participants about the benefits of reporting their income by creating a cash economy program office that would coordinate research, outreach, and compliance efforts. The office would improve compliance among cash economy participants, so that such participants would be better informed of the necessity of reporting their income in order to determine eligibility for various government benefit programs or for more permanent immigration status.

Reform the tax code

Although there is limited evidence about the relative proportions of the tax gap attributable to confusion and ignorance rather than willful misconduct,²⁷ many tax experts feel that the complexity of the current system makes it all too easy for honest taxpayers to make mistakes.

The number of pages of tax rules and regulations has risen from 26,300 in 1984 to 66,498 in 2006.²⁸ Since the last major reform of the tax code in 1986, more than 14,000 changes to the tax code have been enacted.²⁹ And there is little, if any, evidence that computerized tax

preparation software substantially mitigates this growth in complexity, particularly for low-income filers. $^{\rm 30}$

As one example of the complexity of the tax system, the GAO has uncovered hundreds of thousands of individuals who chose sub-optimal provisions in the tax code to finance their higher education or the postsecondary education of their children.³¹ That is, individuals were bewildered by "the nine separate education credits, deductions, and income exclusions, which collectively contain four different measurements of income, six different income threshold amounts, and three different definitions of 'qualified higher education expenses."³²

Tax experts suggest that fundamental tax reform—one that would broaden the tax base by reducing the number of special provisions for certain forms of income—would make the tax system simpler and voluntary compliance easier. But the more substantial effect of tax reform on reducing the tax gap is probably through its effect on willful evaders. First, a reform that would broaden the base and hence allow lower marginal tax rates would make tax evasion less attractive, as the potential taxes avoided are reduced. Fundamental reform would also treat different forms of income (or consumption) more similarly, reducing the payoff from mischaracterizing income as a type that it is not.

Pursue further research and data collection

Many experts stress that the IRS cannot hope to collect more of the tax gap without a better comprehension of it. Noncompliance rates for 2001 have more or less held steady since the last comprehensive analysis of IRS data in 1988, although there are no data for the intervening years to detect the direction compliance rates are headed.³³ In order to better understand trends in compliance over time, the GAO and others have called for an increase in the frequency with which the IRS studies the rate and form of noncompliance. It is possible that the rate substantially fluctuated during the intervening years, especially in light of rapid changes in the level of resources allocated to enforcement. Indeed, audits fell by half from fiscal year 1996 to fiscal year 2004, although audits have actually increased dramatically in the past several years, with fiscal year 2000 representing the most recent trough.³⁴

Better and more frequent collection of compliance data would improve IRS efficiency by allowing the IRS to periodically update and improve its audit selection formulas to maximize net revenue yields. Ongoing, comprehensive research on such data is necessary for the IRS to understand the nature and causes of noncompliance, in order to develop the tools to uncover and address it.

Summary

For reasons of fairness, efficiency, and ease of implementation, reducing the tax gap should be one of the first tasks of any comprehensive deficit-reduction package. The United States currently fails to collect about one-sixth of the revenue that current tax law, applied to legal and observable economic activities, should produce. As a result, the tax rate applied to the remaining tax base must be higher. Most of the tax gap is associated with taxable activities that tend to be a larger share of income in higher-income households, imposing an additional and regressive tax on households who do comply. The tax gap is unfair from an intergenerational perspective as well, because the failure to collect taxes legally owed now implies that a still higher tax burden will have to be placed on future generations. Immediate action to reduce the tax gap would allow the current generation of taxpayers to pay more of their fair share without requiring any fundamental changes in tax law or the role of the IRS. While the government could never close the tax gap entirely and citizens would not want the IRS to engage in inefficient, costly, and intrusive policies to do so, experts believe that at least 10 percent (or \$30 billion to \$40 billion per year) is retrievable. This is a high-return, lowcost strategy for deficit reduction and should be quickly and vigorously pursued.

Broadening the Tax Base by Reducing Tax Expenditures

Tax policy is used not just to raise revenue, but also to forgo revenue through subsidies that take the form of exclusions and exemptions, deductions and credits, and preferential tax rates. Tax expenditures are a much less obvious form of government spending than are direct expenditures, because they reduce the revenue the government might receive rather than appear as a cost on the spending side of the budget. But tax expenditures influence the budget deficit in the same way that spending programs do, and represent a huge amount of spending. According to the GAO, the sum of all the various federal tax expenditures remained at roughly 7.5 percent of gross domestic product (GDP) from fiscal year 1988 through the mid-1990s, when the accomplishments of the last major tax reform (of 1986) began to unravel, with many new tax expenditures created by the Taxpayer Relief Act of 1997. Tax expenditures have been larger than all of discretionary spending over most of the past decade, the exception being the past three fiscal years when discretionary spending has grown to the highest shares of GDP since 1993.³⁵ The GAO report also points out that the number of tax expenditures reported by the Treasury Department more than doubled between 1974 and 2004 (from 67 to 146), which demonstrates that tax expenditures have become increasingly popular with policymakers as an easier way to spend federal resources. As the overall number of tax expenditures has doubled, the sum of estimated revenue losses from these provisions, even indexed for inflation, has tripled—from \$243 billion in 1974 to \$728 billion in 2004 (in 2004 dollars).

Since the early 1970s both the Treasury Department and the Joint Committee on Taxation in Congress have been documenting these tax expenditures as part of the budget process, and since 1974 the Congressional Budget and Impoundment Control Act has required that the annual budget include a list of tax expenditures.³⁶ However, despite their listing in the budget volumes, tax expenditures have not been integrated into the budget proposals presented to Congress, have not been subject to the same reviews as spending programs, and are not held to the same standards as spending when it comes to fiscal discipline. The Office of Management and Budget recently developed a new website that grades spending programs, but the site lacks evaluations of any tax expenditures.³⁷ The pay-as-you-go rules in the budget process have expired, and now many who favor tax cuts believe that such tax changes should not be subject to the same rules as spending programs. The most prominent fiscal and economic policy experts, however-including former chairman of the Federal Reserve Board Alan Greenspan and U.S. Comptroller General David M. Walker-disagree. Greenspan emphasized the need for rules covering both spending and tax programs when he testified before the House Budget Committee stating "I would like to see tax cuts continued. But. . . that has got to be, in my judgment, in the context of a PAYGO resolution."38 Walker has been traveling the country with the Concord Coalition's Fiscal Wake-Up Tour decrying the notion that tax cuts deserve an exemption when it comes to budget rules.39

In addition, tax expenditures come and go every year and are often legislated with expiration dates, which means that even if they are routinely extended they do not get scored at their true longer-run cost in the current-law baseline calculated by CBO.

Cutting back on tax expenditures can be good for revenues as well as good for economic efficiency, because a broader tax base allows revenues to increase even without raising any marginal tax rates (which would increase the distortionary effects of taxes, requiring a weighing of the trade-off between potentially discouraged private-sector economic activity and increased public saving). Most tax expenditures puncture the broad definition of an income base, or un-level the playing field—causing people and businesses to substitute toward the tax-preferred activities even where there may be no economic justification for such preferences. Many of these tax expenditures result in substantial amounts of forgone revenue. Reducing such tax expenditures would thus improve economic efficiency while raising revenue, reducing the deficit, and increasing national saving and economic growth.

Recommendations for Broadening the Tax Base by Reducing Tax Expenditures

This paper does not address fundamental tax reform, so the present discussion is not a comprehensive examination of tax expenditures from the perspective of moving more fully toward a purer income base or consumption base. Instead, it focuses on particular examples of tax expenditures that, if analyzed more as direct spending programs are, might not rank very high in terms of economic benefit (however broadly defined) relative to cost. The proposals to scale back some of these tax expenditures are not new ideas; the contribution of this paper is the particular combination of these proposals that, together with the other tax proposals outlined in the rest of this paper, serve as an example of a package that would be quite effective at reducing or even eliminating the budget deficit.

The particular proposals below were chosen because they have all been discussed and analyzed by CBO on a regular basis, they have large potential revenue yield with little or no compelling economic justification from a resource allocation/efficiency standpoint, and their elimination or reduction does not create significant distributional concerns. In contrast to a fundamental tax reform perspective that uses a perfectly neutral consumption or income base to determine which tax expenditures should stay and which should go, the approach here is to suggest some easier, more fruitful ways to reduce tax expenditures with the main goal of raising substantial revenue. Consistency with the goals of tax reform—making changes that improve simplicity, fairness, and economic growth—is a secondary goal of the proposals.

If all of the following proposals to reduce tax expenditures were adopted, the total potential revenue gain would be \$250 billion to \$300 billion per year during the 2008 to 2012 time period. So while reducing the tax gap would not come close to eliminating budget deficits, broadening the legal tax base by reducing or eliminating some large tax expenditures could (table 1).

Table 1. Base Broadening Options

(in billions of current dollars)

	2006	2007	2008	2009	2010	Five-Year ^a	Ten-Year ^b
Itemized deductions	29.3	59.3	60.5	62.5	64.7	276.3	966.1
Employer-paid health insurance	17.5	30.3	38.8	48.6	59.9	195.1	705.9
Life insurance and annuities	10.9	22.1	22.7	23.3	23.9	102.9	244.1
Income earned aboard	0.9	4.1	4.3	4.5	4.7	18.5	46.1
Social Security and railroad benefits	9.0	22.1	23.3	24.1	25.1	103.6	279.2
Individual/Household provisions total	67.6	137.9	149.6	163	178.3	696.4	2241.4
Corporate tax rate	2.4	4.9	5.0	5.0	5.0	22.3	49.5
Extractive industries	3.6	4.9	4.0	2.9	1.7	17.1	19.3
Alcohol fuels	1.4	1.4	1.5	1.5	1.5	7.3	7.6
SUVs	0.1	0.1	0.2	0.2	0.1	0.7	1.1
Cost of equipment	2.8	8.6	12.5	13.7	15	52.6	98.3
Source rules exception	1.9	4.9	5.0	5.1	5.2	22.1	49.6
Foreign subnational taxes	3.0	6.7	6.9	7.2	7.5	31.3	73.3
Business provisions total	15.2	31.5	35.1	35.6	36	153.4	298.7
Social Security (92 percent of earnings)	19.6	51.3	54.0	57.2	60.5	242.6	581.1
Social Security taxes total	19.6	51.3	54.0	57.2	60.5	242.6	581.1
Total, Base Broadening Options	102.4	220.7	238.7	255.8	274.8	1092.4	3121.2

a. Five-year period from 2006 to 2010.

b. Ten-year period from 2006 to 2015.

Source: CBO, 2005b. See relevant portions of text for CBO option number for each proposal.

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Individual/Household provisions

The five changes suggested in this section would add between \$150 billion and \$200 billion to federal coffers each year.

1. Limit the tax benefit of itemized deductions to 15 percent (CBO option #9). This option would generate \$60 to \$70 billion per year or more than \$300 billion over five years. Current law allows taxpayers to deduct the total amount of their itemized deductions from their taxable income. Limiting the value of itemized deductions to 15 percent (of the amounts deducted) would be a progressive change and would make the deductions work more like tax credits. With graduated marginal tax rates that increase with income, the value of a given amount of deductions (the subsidy given by the tax system) is higher at higher tax brackets. This option would give all taxpayers who itemize the same subsidy per dollar of deductions. (Most taxpayers do not itemize, however, so this still would not extend the benefit to lower-income households. According to CBO, of the one-third of taxpayers who do itemize, about half are in brackets who also have the largest deductions.)

An alternative approach would be to differentiate among current itemized deductions and pick and choose which ones should be eliminated or how particular ones should be scaled back. For example, the CBO budget options include two proposals that limit the value of the mortgage interest deduction (one to limit interest on mortgage principal of no more than \$500,000, the other to eliminate deductibility of home equity loan interest), as well as proposals to limit deductible state and local taxes and charitable contributions (to amounts exceeding a 2 percent of AGI floor). This approach raises much less revenue than the 15 percent limitation.

The President's Advisory Panel on Federal Tax Reform offers another alternative approach—eliminate all itemized deductions, and turn preferences for mortgage interest and charitable giving into smaller credits or deductions available to all taxpayers.⁴⁰ The panel put forth this bold proposal in large part in order to raise enough revenue to pay for the repeal of the individual alternative minimum tax, while also greatly neutralizing the associated distributional effects. This proposal is more appropriate in the context of fundamental tax reform than in a package of (relatively simpler) options for deficit reduction.

2. Limit tax exclusion of employer-provided health insurance premiums and spending from health-related savings accounts (CBO option #15). This option would generate approximately \$50 billion to \$60 billion per year, or \$200 billion to \$300 billion over five years. According to the report of the President's Advisory Panel on Federal Tax Reform, tax preferences for health care, taken together, represent the largest tax expenditure in the federal system at \$141 billion in 2006.⁴¹ Most of this lost revenue (over \$90 billion) comes from the exclusion for employer-provided health insurance benefits.⁴² Adopting this CBO option would limit tax-exclusions for employer-provided health insurance to a total based on average premiums paid by employers around the time of enactment (\$720 per month for family coverage and \$310 per month for individual coverage based on 2004 premiums). These ceilings would not be indexed for inflation, so that the real value of the tax subsidy would phase down over time. The President's Advisory Panel on Federal Tax Reform recommended a similar limit, except the limit would be indexed over time to the rate of general inflation.

Limiting this tax preference could make the markets for health insurance and health care more efficient by raising the effective price of health care faced by consumers to something closer to true costs. The option would also level the playing field between employer-provided and other forms of health insurance, and is likely to be a progressive tax increase (with highest-income households most likely to be purchasing health coverage and care above the tax-preferred ceilings). Critics of reducing or eliminating this tax subsidy, however, worry that this option would probably result in employees directly paying a larger share of their health insurance premiums, which could lead some—particularly lower-income households—to forgo insurance. Critics also worry that firms would be led to discontinue offering health insurance coverage.

3. Tax investment income from life insurance and annuities (CBO option #16). This option creates an additional \$20 billion to \$25 billion in revenue per year or \$100 billion to \$150 billion over five years. Under current law, the investment income from money paid into life insurance policies and annuities (sometimes referred to as "inside buildup") is not taxed until it is paid out to the policyholder. This option would instead tax such income as it is realized—treating life insurance and annuities accounts just as mutual funds are treated.

This option would reduce the tax incentive to buy life insurance, but CBO says there is "little evidence...about how successful the current tax treatment is in reducing underinsurance." The proposal would level the playing field between these types of investments and income from bank accounts, taxable bonds, or mutual funds. But investment income generated from annuities purchased as part of a qualified pension plan or qualified individual retirement account would still be more favorably treated with taxation only when benefits were paid.

4. *Include income earned abroad in taxable income* (CBO option #17). This option would generate between \$4 billion and \$5 billion per year or \$15 billion to \$20 billion over five years. This option would require U.S. citizens who reside overseas to include in their adjusted gross income all of the income they earn abroad. (Current law allows an exclusion of up to \$80,000 for single filers and \$160,000 for married filers.) It would still allow a credit for taxes paid to foreign governments.

Proponents of this option consider the exclusion of income earned abroad an unfair subsidy to corporations that employ U.S. citizens abroad. Eliminating the exclusion would increase equity in the tax system because U.S. citizens with similar income would have similar tax liabilities regardless of where they live. But opponents argue the exclusion is one thing that entices U.S. multinational firms to employ U.S. workers (even if working abroad) rather than outsourcing to foreign workers.

5. Tax Social Security and railroad benefits like private pensions (CBO option #20). This option would add approximately \$25 billion per year in revenues, or \$125 billion over five years. Under current law, only some Social Security and railroad retirement benefits are subject to taxation, through a three-tiered structure subjecting higher fractions of the benefits to taxation at higher combined-benefit levels, with the first \$25,000 for a single filer or \$32,000 for a couple filing jointly totally exempt in the bottom tier.

This option would tax all Social Security and railroad retirement benefits in excess of a base reflecting what employees have paid into the systems. This would bring the tax treatment of these benefits in line with that of private pensions. This option is viewed as making the tax system more equitable, but one disadvantage is that more elderly people would have to file tax returns than is now the case, increasing complexity. At the same time, this option, by eliminating the multiple tiers determining taxable benefits, would simplify preparation of taxable returns for the elderly.

Business provisions

The four proposals offered in this section would generate between \$35 billion and \$40 billion per year in additional revenue for the federal government.

Set the corporate tax rate at 35 percent for all corporations (CBO option #25). This provision
is worth about \$5 billion per year or \$25 billion over five years. Current law taxes
corporations according to a graduated four-tier marginal tax rate schedule with a top
rate of 35 percent. This option would tax all corporate taxable income at a single
marginal rate of 35 percent. The arguments in favor of this provision are that it would
simplify the corporate tax structure and would not violate standards of progressivity.⁴³
Like the 15 percent limit on the value of itemized deductions, this is a simple, broadbrush way to raise effective tax rates without examining the narrower treatment of
different taxpayers (or in this case, corporations) who fall under the tax.

An alternative approach would be to scrutinize the preferential rates given to certain business industries or sectors under current law. For example, repealing or scaling back provisions such as the production activities deduction passed in the 2004 American Jobs Creation Act to encourage domestic production would raise more revenue than this broad, but small, increase in overall corporate taxation.⁴⁴

- 2. Repeal expensing of oil and gas exploration and development, repeal the ethanol tax credit, and apply limited depreciation to SUVs (CBO options #28, 29, 32). This combination of options adds about \$5 billion to \$7 billion in revenue per year or \$25 billion to \$30 billion over 5 years. The first two of these tax preferences are typically justified on energy security grounds, but these provisions inefficiently favor these particular forms of energy over others. The expensing of exploration and development costs for the oil and gas industry is a likely detriment to the quality of the environment (by encouraging fossil fuel production and global warming). The ethanol preference has dubious environmental benefits and is viewed by many experts as primarily a subsidy to U.S. corn farmers rather than a subsidy toward the production of cleaner fuels. Current law allows businesses to use more generous depreciation allowances for sport utility vehicles (SUVs) than for other types of automobiles, encouraging purchase of larger-thannecessary vehicles and hence greater consumption of fossil fuels. Eliminating or reducing these tax preferences would reduce the deficit while helping with environmental goals as well. A broader package of environmentally motivated tax policies is discussed later in this paper.
- 3. Extend the depreciation period for equipment (CBO option #36). Removing this subsidy adds about \$15 billion per year to the Treasury or \$50 billion to \$60 billion over five years. This option would equalize the tax treatment of different forms of capital while raising revenue by lengthening the lifetime of equipment for tax depreciation purposes. Consistent with tax reform strategies, this change would improve economic efficiency by increasing neutrality in the tax system, allowing capital to flow to its most

productive uses instead of being steered toward one particular use through the tax subsidy.

4. Increase corporate taxation of foreign-earned income (CBO options #44 & 45). This option would generate \$10 billion to \$15 billion per year or \$50 billion to \$55 billion over five years. Under a current rule on title passage, firms can classify income as foreign in source even if all economic activity occurred domestically. This option would replace the title passage rule with one that taxes income based on where the inventory was actually produced. Although designed to prevent taxation of income both in the United States and abroad, the title passage rule leads to some business income being exempt from taxation altogether. This export incentive also distorts prices, causes the dollar to depreciate, and gives some U.S. multinational firms an advantage over others.

Additionally, this proposal would treat income tax paid to foreign sub-national governments the same way that domestic state and local income tax is treated. This treatment would help to "level the playing field between domestic and foreign investment by slightly reducing the incentive that U.S.-based multinational corporations now have to invest more abroad than at home."⁴⁵ This would result in a more efficient global allocation of capital. However, this option may make U.S. companies abroad less competitive than foreign companies.

Social Security taxes

Under current law the Social Security payroll tax is levied at a flat rate up to a maximum level of taxable earnings (\$94,200 in 2006). Earnings above that level face no additional Social Security taxes (a zero marginal tax rate). Because of this, the Social Security tax is proportional in incidence up to the maximum taxable earnings level, but regressive beyond that level.

There are two options to raise more revenue from Social Security taxes. The first (CBO option #39) would increase the taxable maximum earnings level so that 90 to 92 percent of aggregate earnings would effectively be subject to the Social Security payroll tax. (This corresponds to maximum taxable earnings levels in the \$150,000 to \$190,000 range.)

The advantage of this proposal is the substantial amount of revenue it would raise (between \$40 billion and \$60 billion per year or between \$200 billion to \$250 billion over five years) while reducing the current regressivity of the payroll tax at higher income levels (and increasing the overall progressivity of the federal tax system). Because the maximum taxable earnings level enters into the Social Security benefit formula, however, there would be some small offset to the revenue yield in terms of net effect on the deficit, unless the benefit formula were modified to stay at the old taxable maximum.

The second (CBO option #15) is a much bolder proposal that would make all earnings subject to the Social Security payroll tax.⁴⁶ The Social Security tax would then be fully proportional in incidence and would raise substantial revenue—about \$100 billion per year, or more than \$500 billion over five years. However, this increase in payroll taxes could discourage labor for those whose earnings now exceed the maximum, suggesting that the elimination of the earnings ceiling could be combined with some rate reduction to make the payroll tax more proportional and less regressive while reducing the distortionary effect on those who currently fall below the taxable maximum.

Given the challenge and complexity of implementing the second option, the revenue gains projected in this paper assume adoption of a Social Security tax that is levied at 92 percent of aggregate earnings.

Summary

Reducing federal tax expenditures is one way to raise revenues and reduce the deficit while improving, not worsening, the efficiency of the tax system. By broadening the tax base, marginal tax rates can be kept low. In addition, many tax expenditures disproportionately benefit higher-income households, so reducing or eliminating them would represent a progressive policy change. The options recommended here have the potential to raise a combined \$250 billion or more per year. Although each of these options can be argued as sound economic policy, the existence and persistence of these tax expenditures are explained mostly by politics. Scaling back government spending that is done on the tax side of the budget will not be an easy sell until policymakers start scrutinizing tax expenditures in the same way they evaluate direct spending programs, and until the public begins to understand that not all tax breaks are good for the economy.

Implementing Environmentally Motivated Tax Policy

Mounting debt places a substantial burden on young Americans and future generations who are in danger of inheriting a lower standard of living and who face a substantial "birth tax" interest on the debt. Future quality of life is further compromised by the deterioration of environmental quality expected from global warming. America's voracious appetite for fuel is a major contributor to global warming and negatively affects our fiscal situation through subsidies for domestic oil exploration and production. In light of the fiscal and environmental challenges facing America, federal leaders should consider a new strategy for tax policy to help on both fronts: a package of tax changes that would both raise significant tax revenue and better align the price of fossil fuel use with its social costs.

The environmentally harmful activities that take place in the economy typically maximize private profits but are detrimental to society's well-being. Consumers and producers who pollute or emit greenhouse gases do so in a way that seems optimal for them individually: Market decisions are based on what maximizes a relatively narrow definition of benefits—the short-run net benefits or profits to individuals and firms—not on what would maximize the net benefits to society as a whole or over the longer run. Harm to the environment is largely a social, not private, concern, and as economists put it, generates "negative externalities" where the private costs associated with harmful activities (the price at the pump for a gallon of gasoline, for example) understate the true social costs (which would appropriately include the negative value placed on the pollution or congestion generated by gasoline consumption). With no assignment of property rights to the quality of the environment, private markets for commodities associated with harmful environmental effects fail to adequately price these goods to reflect true social costs. In turn, too many environmentally harmful activities, and too few environmentally beneficial activities, are undertaken relative to other activities.

There are two ways to adjust the relative prices for activities with environmental impacts through public policy—raise the cost of harmful activities or reduce the cost of beneficial activities. Either method would lead to a more socially optimal or efficient level of pollution or climate change compared to private markets on their own. The first policy can be considered a "push" approach (pushing individuals and firms away from certain harmful activities), while the second is a "pull" approach (pulling individuals and firms toward certain beneficial activities). But these approaches have different implications for the federal budget: The first implies a tax increase (or spending decrease) that reduces the deficit, while the second implies a subsidy that increases spending and raises the deficit. The "push" approach raises money, while the "pull" approach costs money. Both approaches change relative prices in the same way, but they allocate the flow of dollars differently.

A general strategy to address the environmental and fiscal crises is to correctly adjust relative prices while maximizing the use of a push approach over a pull approach. Push approaches can consist of new or higher taxes on environmentally harmful activities, but they can also include eliminating existing subsidies to harmful activities. Even current subsidies that may be justified on environmental grounds (as appropriate pull approaches) could be reduced or eliminated if sufficient environmentally motivated taxes are put in place, so that along with improved environmental outcomes, still more revenue is raised and more deficit reduction accomplished. By reducing economically harmful deficits while discouraging greenhouse gas emissions, a new tax policy would encourage the sort of environmentally prudent economic growth necessary to provide a brighter future for future generations.

Current U.S. Tax Policies Affecting Energy Markets and the Environment

According to the Organization for Economic Cooperation and Development (OECD), environmentally related taxes in the United States are currently below 1 percent of GDP, about half of the OECD weighted average.⁴⁷ As a percent of total tax revenues and on a percapita basis, U.S. environmental taxes are about two-thirds of the OECD averages. By all of these measures, our nation's taxation of environmentally harmful activities has come down in recent years (from 1999 to 2003).

Gasoline excise taxes account for virtually all of U.S. environmentally related taxes, yet gasoline is taxed extremely lightly. (A gasoline tax can be considered an environmentally related tax primarily because the consumption of gasoline produces carbon dioxide, which contributes to the global warming problem.) Federal and state excise taxes together amount to less than 40 cents per gallon, compared to a range among most other OECD countries of between \$2 and \$3 per gallon. Adding in sales or value-added taxes, the contrast becomes even greater, as other OECD countries rely much more on broad-based consumption taxes.⁴⁸ Federal excise taxes on gasoline are currently 18.4 cents per gallon but have been at that level since 1993, so as gasoline prices have risen, taxes as a share of retail price have fallen dramatically—from 17 to 18 percent in 1993 to only 6 to 8 percent most recently.⁴⁹

Not only does the U.S. tax system hesitate to tax environmentally harmful activities, it actually subsidizes these activities (mostly fossil fuel production) to a large extent as discussed in the earlier section of this paper on reducing tax expenditures. Researchers at Resources for the Future (RFF) have compiled a list of energy subsidies that they label as "environmentally and economically damaging," suggesting that they should be eliminated.⁵⁰ Two tax expenditures have been targeted by both RFF and CBO:

• Expensing of exploration and development costs for extractive industries (oil, gas, and hard minerals). The original rationale for this tax break was that exploration and

development costs were ordinary operating expenses. Now this subsidy is defended as essential to national energy security. Economists believe the subsidy just encourages an inefficient amount and timing of drilling and that by encouraging current extraction it could actually worsen dependence on foreign oil over the longer run. CBO estimates that repealing this provision would raise between \$4 billion and \$5 billion per year over the first couple of years, more than \$17 billion over five years, and nearly \$20 billion over ten years.⁵¹

• *Percentage depletion for extractive industries.* Another special tax incentive given to producers of oil, gas, and minerals that is also justified on grounds of national energy security, and also creates the same sorts of inefficiencies as the exploration and development subsidy. CBO estimates that repealing this provision would raise nearly \$1 billion over five years (about \$200 million per year) and almost \$2.5 billion over ten years.⁵²

The RFF analysis emphasizes that as production subsidies, these particular tax expenditures are unlikely to affect the consumer's cost of energy use and hence are unlikely to affect greenhouse gas emissions, which are generated by end-use consumption. But these tax provisions are still inefficient because they encourage too much fossil fuel production, leading to environmental damage from production by-products (effluents, leakages, accidents, and spills).

The current tax code also grants special preferences and exemptions to SUVs, which seems exactly the opposite of what it should do to encourage motor vehicle fuel conservation. Justified as adjusting taxes for the costs of conducting business, more generous depreciation allowances (expensing and accelerated depreciation) are permitted for SUVs and light trucks compared with lighter vehicles, and the heavier vehicles are also exempt from taxes levied on vehicles with low fuel mileage. These favors to SUVs cost more than \$1 billion over ten years.⁵³

Some energy subsidies provided through the tax code are designed to increase energy production and energy security and are often at least partly justified by environmental goals, yet in practice perform poorly. One prime example is the tax credit for ethanol fuels and the exemption of these fuels from excise taxes. Researchers have suggested that the primary beneficiaries of these subsidies are ethanol producers and corn farmers and that there is little if any net savings in fossil fuel use when one takes into account the fossil fuels used in the production of ethanol itself. Yet this tax expenditure is worth nearly \$2 billion a year.⁵⁴ (This option was discussed earlier in this paper in the context of reducing various tax expenditures.)

Similarly, the production tax credit known as section 29 subsidizes the production of nonconventional fuels and is typically justified in terms of energy security, but sometimes on environmental grounds as well. Section 29 applies to fuels such as oil produced from shale or tar sands, synthetic fuels produced from coal, gas produced from pressurized brine, Devonian shale, tight formations, biomass, and coalbed methane—fuels that were deemed uneconomical for conventional production when the provision was established in 1980. This provision is another subsidy to fossil fuels industries and encourages wasteful and even fraudulent behavior, rather than environmentally motivated energy production.⁵⁵ Despite a cost to the Treasury of more than \$3 billion per year, this tax provision is continually renewed. In addition, the tax system provides some subsidies that are more clearly designed to promote environmental goals by lowering the costs of producing or consuming cleaner forms of fuel or enhancing energy efficiency. According to the Joint Committee on Taxation, the credit for the production of electricity from renewable resources (wind, biomass, wastes, solar, etc.) is worth more than \$2 billion in fiscal year 2006, but grows to more than \$6 billion by 2009—or nearly \$30 billion over the next five years.⁵⁶ Smaller examples are the tax credit for hybrid automobiles, a tax expenditure worth around \$300 million in fiscal year 2006, or about \$1.5 billion over five years, and miscellaneous provisions designed to encourage energy-efficient investments in homes and commercial properties worth several billion dollars more (over five years).

Under the current tax system that provides non-optimal subsidies for the fossil fuel industry, these subsidies for alternatives make sense as they help to at least level the playing field between choices that actually should be biased in the opposite direction to take social costs into account. However, a tax policy centered on reducing environmental harm while raising revenue would make these subsidies redundant. RFF researchers have stressed that instead of subsidizing cleaner fuels, it would be "more efficient . . . to levy policy sanctions directly against pollution or greenhouse gases, thus making cleaner choices more attractive."⁵⁷ Such an approach would also be better for deficit reduction and consistent with a push over pull approach.

CBO recently analyzed a combined strategy for environmental policy that would both price emissions (such as through a carbon tax) and subsidize investments in environmental research and development. They suggest that some combination of both could represent a cost-effective way to reduce emissions, but that "pricing emissions would contribute more to minimizing the cost of reducing emissions than would subsidizing investments in <code>[research</code> and development]."⁵⁸

A Reliable "Double Dividend" from Environmentally Motivated Tax Policy

A deficit-reduction policy based on a corrective tax would produce a win-win situation for the economy: The (large) negative economic effects associated with the deficit would be reduced and the harmful taxed activities (such as those generating greenhouse gases and contributing to global warming) would be more appropriately discouraged.

Over the past decade or so, economists have spoken of the appeal of corrective taxation due to its potential to improve economic efficiency by aligning private costs more with true social costs and by allowing reductions in other taxes, most of which are inefficient. This two-fold benefit from environmentally motivated taxes has been referred to as a double dividend.

The conventional notion of a double dividend from environmentally motivated taxes assumes a revenue-neutral policy and a second dividend limited to the pure efficiency gains from marginal tax rate reductions (such as reductions in capital and labor income tax rates). But there is considerable dispute in the economics community about whether this is a true double dividend or just double counting, as it is not the revenue raised that produces the efficiency gain, but rather the effect of getting socially efficient relative prices.⁵⁹ But however labeled, the literature does confirm the value of raising revenue in allowing the government to capture and broadly distribute the benefits of the new relative prices. If the revenue from an environmentally motivated tax were used not to reduce some other preexisting tax but instead to reduce the

deficit, the second of the double dividends would be much larger because the economic gains from reducing the deficit and increasing national savings are much greater than the economic gains associated with lower marginal tax rates.⁶⁰

Thus, any broad-based tax on fossil fuels (or a subset of them) that used revenues to reduce the federal deficit would truly produce two dividends for society. The first is improved environmental quality and reduced energy dependence. Higher taxes on fossil fuels would actually make society better off by more appropriately signaling the social costs, reducing quantities demanded, and producing an increase in social net benefits (as social costs associated with fossil fuel consumption would go down more than the social benefits of consumption do). Higher taxes on fossil fuels would also reduce our nation's dependence on foreign supplies. The second dividend is a significant reduction in the federal deficit. Reasonable proposals for new environmentally motivated taxes or higher energy taxes, coupled with the elimination or reduction of some harmful or redundant tax expenditures, could easily raise tens of billions of dollars per year in revenue that could be put toward deficit reduction.

New Tax Options

Global warming is caused and worsened by carbon dioxide emissions; emission amounts are dependent on the carbon content of a fossil fuel, the fraction of a fuel consumed in combustion, and the level of consumption of that fuel. Taxes can be implemented at any of these points to avoid the need to measure and tax carbon dioxide emissions directly. Any of the following taxes could be used to make activities generating carbon dioxide more expensive:

- A new carbon tax based on the carbon content of fuels, which could be facilitated through government auction of tradable permits—an approach suggested by CBO and analyzed by the Department of Energy's Energy Information Administration (EIA).⁶¹ A tax of \$15 per metric ton of carbon equivalent (mtce) would raise approximately \$30 billion per year, and raise gasoline prices about 4 or 5 cents per gallon.
- A new tax on oil consumption of \$5 per barrel would raise approximately \$30 billion per year, and would raise gasoline prices by about 10 to 12 cents per gallon. Scholars at RFF estimate that a tax at this level would minimize economic harm to the nation. Although households would incur higher prices for gasoline and other products, the revenue would be used to reduce other taxes or to reduce the deficit.⁶²
- A 25 cent increase in the federal excise tax on gasoline would raise approximately \$30 billion per year and would only increase consumer prices by about 10 percent.⁶³ An increase of this magnitude is a reasonable compromise between the optimal tax level that would account for the external costs generated by motor vehicle use (more than 50 cents) and the CBO-recommended increase (12 cents).⁶⁴

A more detailed discussion of each of these options follows.

<u>Carbon tax</u>

In contrast to many European countries that have adopted environmental taxes, the marketbased environmental approach of the United States has been limited to handing out tradable permits and giving the surplus to the private sector. Even there U.S. experience has been limited to sulfur dioxide permits as just one part of the Environmental Protection Agency's acid rain program. Because of this lack of precedent for U.S. environmental taxes, many policy experts are skeptical that a carbon tax could ever be politically acceptable. Although a carbon tax is a market-based strategy, it is one that happens to hand the surplus value to the government instead of the private sector.

An alternative policy strategy is to distribute carbon emissions permits or allowances to the private sector and limit the number of allowances in order to limit total emissions. Firms would be allowed to buy and sell allowances, giving an incentive to firms that can reduce emissions at the lowest cost to do so, enabling these firms to then sell their excess allowances to firms with a higher cost of reducing emissions and to pocket the proceeds. In this way, a trading system will generate the total limited level of emissions in the most efficient way, at the lowest cost. But the income generated by sold permits goes to businesses as profit rather than to the public sector as revenue. Thus, there is no double dividend under a trading system as there is under a carbon-based tax, which can be used to reduce the deficit or reduce other taxes.⁶⁵ (The free distribution of allowances also creates a more regressive policy, as higher business profits ultimately benefit stockholders rather than consumers.⁶⁶)

But a carbon tax at the level of \$15 per mtce as proposed above is low as a fraction of current energy prices and could be argued to be too low compared to the true social costs of global warming or too low to generate an actual reduction in greenhouse gas emissions over time. Studies using simulation models of carbon taxes in the range of \$10 per mtce to \$50 per mtce were shown to simply slow the growth of emissions relative to baseline, not reverse their upward trend.⁶⁷ Ian Parry of Resources for the Future estimates that the tax needed to achieve the emissions reductions specified under the Kyoto Protocol would be somewhere between \$50 per mtce and \$150 per mtce.⁶⁸ A carbon tax in this range—such as \$75 per mtce in 2010—would raise approximately \$90 billion per year. Of course, by producing an actual reduction in emission levels over time, a highly effective carbon tax would also result in lower revenues over time.

This lack of experience with full-blown environmental taxes combined with the need to set a carbon tax at a very high level to truly see results has led many environmental policy experts to suggest that the United States take a hybrid approach to reducing carbon emissions and reducing the deficit. Under an approach known as a "cap-and-trade" program with a "safety valve" price mechanism, policymakers would set a cap on carbon emissions and allow firms to buy and sell allowances among themselves, but Congress or federal agencies would also set an upper limit on the market price of those allowances.⁶⁹ If the allowances prove scarce enough so that the market price is bid up above this upper limit (the safety valve), the government would sell as many allowances as necessary to get the price back down to that limit. In other words, the government would collect the value of the extra allowances that were released into the market, collecting revenue that could be used for deficit reduction. However, including a safetyvalve mechanism implies that the emissions cap is not binding and when the safety valve is triggered, environmental goals would not be as well met. Still, a tradable permits system with these qualities is a potentially useful policy tool to begin carbon regulation in an economy used to the handing out of pollution rights. Over time, the fraction of allowances auctioned off by the government could be increased by setting tighter caps. With relatively inelastic demand for allowances, safety-valve prices could also be increased to raise more revenue while achieving pricing that is closer to the social optimum.

Senator Ken Salazar recently requested the EIA analyze different combinations of caps and safety-valve prices, and EIA researchers estimated that even if the vast majority of the allowances were initially handed out to firms rather than auctioned, a safety-valve price set high enough (implying a fairly tight cap on emissions), still has substantial revenue potential for the government. With the highest-priced option setting a safety-valve price gradually rising to about \$50 per mtce over twenty years, the annual revenue in 2030 would reach \$40 billion, and the cumulative revenue collected would be nearly \$200 billion.⁷⁰

<u>Oil tax</u>

A tax on oil consumption would have a narrower base than a carbon tax and would be less directly an environmentally motivated tax given that coal, not oil, has the greatest carbon content among fuel sources. But an oil tax would still discourage the consumption of petroleum products, which are a major contributor to U.S. carbon dioxide emissions.⁷¹ In addition, an oil tax would be preferred if the goal of energy independence is as high of a priority as or a higher priority than the goal of curbing global warming. If that is the case, taxes should be designed to discourage the consumption of those carbon-based fuels that America imports the most. (Though coal is a heavy carbon emitter, it comes almost entirely from U.S. soil and thus does not pose a significant security risk.⁷²)

Experts at RFF explain that a broad oil tax would be much more effective at reducing oil dependence than an increase in the federal gasoline tax (a narrower fuel base) or higher fuel economy standards for new passenger vehicles (a narrower consumption base)⁷³ because the gasoline used in motor vehicles accounts for less than half of the nation's oil consumption.⁷⁴ A broad oil tax would encourage energy conservation and innovation throughout the economy— in other forms of transportation as well as in such uses as heating, industrial production, and electricity generation. The oil tax would also be more effective at reducing oil price shocks by working through the demand side of the market and reducing the overall oil intensity of the economy.

Gasoline tax

An increase in the gasoline tax might be considered the easiest of the three broad environmental tax options, given that the policy would merely raise an existing tax that is widely perceived as being lower than is socially optimal. The option would not as directly address the global warming problem associated with the carbon content of fuels, but would still be quite effective given the currently large contribution of motor vehicles emissions to the problem. A gasoline tax would indirectly address some other social costs associated with driving as well. For this reason, Greg Mankiw, a professor at Harvard and former chairman of the Council of Economic Advisers, advocates an increase in the gasoline tax.⁷⁵ Mankiw's proposal goes further than the one discussed here, calling for a gradual increase of 10 cents per year over the next decade, so that eventually the gas tax is a full one dollar higher.

As discussed earlier, the rate of taxation of motor fuels in this country lies far below that of other countries and has declined over time. The current federal excise tax rate of 18.4 cents has been in place since 1993; meanwhile, the market price of a gallon of gasoline has nearly tripled—from just over \$1 in 1993 to around \$3 in 2006. Even adding in state-level taxes, the combined U.S. tax on gasoline is currently only about 40 cents per gallon.

Gross-of-tax gasoline prices in the United States are less than half of those in most other industrialized countries. The low total cost of gasoline to consumers is a prime culprit in the continued increase in carbon dioxide emissions and global warming, as low prices encourage the purchase and use of larger vehicles (such as SUVs) with low fuel efficiency. Although continued improvements in technology have improved the fuel efficiency of each type of motor vehicle, the mix of the total vehicle fleet has changed over time toward the larger, more powerful, less-fuel-efficient vehicles, offsetting any vehicle-specific improvements. Thus, the OECD reports that the overall fuel efficiency of the U.S. vehicle fleet has not improved over the past decade. The average U.S. vehicle produces almost twice as much carbon dioxide emissions as is the case in most other countries, due both to lower average fuel efficiency and higher average vehicle mileage. Motor vehicles emissions are in fact a major factor (one could say a "driving force") behind the continued rise of U.S.-generated greenhouse gas emissions. Although motor vehicle travel and transport currently account for just one-third of national emissions, this share is expected to approach one-half by 2020 under current policies.⁷⁶

A study by RFF researchers Ian W.H. Parry and Kenneth A. Small examines just how low U.S. gasoline taxes are relative to an "optimal tax" that would account for the external costs to society generated by gasoline consumption—including congestion, carbon dioxide emissions and other air pollutants, and traffic accidents.⁷⁷ They calculate that the optimal gasoline tax in the United States is \$1.01 per gallon, or more than twice the current rate. In other words, given the 40 cents per gallon current rate, U.S. gasoline taxes should be raised by about 60 cents to be fully efficient or optimal—when the consumption of gasoline would reach a point that maximizes the net benefits to society.

A proposal to raise the federal gasoline tax by 50 cents or more would be unlikely to be well received on optimal taxation grounds alone. But the tax increase suggested by CBO, of just 12 cents per gallon, seems too conservative and arbitrary. A reasonable compromise is a 25 cents per gallon increase in the federal excise tax, which would raise approximately the same amount of revenue as the carbon tax and oil tax proposals discussed above, and which would increase gasoline prices by only about 10 percent.

It is difficult to predict how much a 10 percent increase in gasoline prices, through a higher tax, would succeed in reducing consumption. The United States has not recently experienced this type of tax increase and current culture is dominated by a consumption-oriented attitude. Although a recent CBO study claims that "so far, higher prices have had little effect on the amount of motor fuel and fuel oil used per household," a historical chart in that study (showing 1970 through present) supports the law of demand and the inverse relationship between the relative price of gasoline and real household spending on gasoline.⁷⁸ A tax increase is a more permanent price increase as well and would likely generate a stronger response.

Consumers are likely to respond more to a tax increase the longer the period of time over which they have to adjust. At first their response is restricted to such actions as limiting the number of short-distance, back-and-forth trips taken to run errands. Over months the household may be able to adjust its work and activities schedules and/or locations to reduce driving trips or make them more efficient. Over years consumers will look toward buying a more fuel-efficient vehicle when it is time to replace the old SUV. A CBO study on options to reduce gasoline consumption highlights a 1991 survey of empirical evidence on the responsiveness of gasoline consumption to changes in price. Based on eighteen different types of models and ninety-seven different estimates of the price elasticity of demand for gasoline, the survey found that on average a 10 percent increase in price would reduce gasoline consumption by 2.6 percent in the short run and by 8.6 percent in the long run.⁷⁹

The fact that consumers have weathered the gasoline market price increases over the past couple years also suggests that a 25 cents per gallon tax increase would be tolerated fairly well, both economically and politically, especially if put in place at a time when market forces are (even temporarily) causing gasoline prices to come down.

Recommendations for Environmentally Motivated Taxes

The three options for environmentally motivated taxes each have substantial revenue potential, but rely on different size bases, resulting in different increases in gasoline prices. As a politically feasible and economically prudent course, I recommend a weighted combination of these taxes, set to raise approximately \$30 billion per year, or \$200 billion to \$400 billion over the first ten years of new taxes, even when phased in slowly.

In addition to implementing these environmentally motivated taxes, eliminating those tax expenditures that are environmentally harmful or inefficient could increase revenues by approximately \$10 billion per year. CBO's 2005 estimate of the revenue raised from repealing expensing of exploration and development costs alone was \$4.9 billion for fiscal year 2007 and nearly \$20 billion over the first ten years.⁸⁰

Finally, once a broader-based energy tax is in place, policymakers can consider eliminating even those tax expenditures that promote conservation, because the incentive to conserve through the relative prices of carbon-based versus alternative fuels—will already be provided by the new taxes, and the tax preferences would become redundant. There could be some arguments for keeping such subsidies, however, if there is need to fine-tune the incentives from these broad taxes, which are cruder in their effects on different choices (and which would likely be phased in gradually). But eventually eliminating the potentially redundant tax subsidies for alternative fuels and enhanced energy efficiency could raise another several billion dollars per year.

To sum up, an environmental tax policy package—one that would combine a new or higher broad-based energy tax set at a modest level with the elimination of some of the related inefficient or unnecessary tax expenditures—could potentially raise \$40 billion to \$50 billion per year in the first ten years, and could easily be structured so that revenues would continue to rise over time, even as greenhouse gas emissions fall relative to baseline (table 2).

Table 2. Potential Annual Revenue Gain from Environmentally Motivated Taxes

(in billions of dollars) All revenue gains are estimates

	One-Year Revenue Gain
New tax options (Carbon \$15 per mtce, oil tax of \$5 per barrel, or gasoline tax increase of 25 cents per gallon)	\$30 billion
Eliminate environmentally harmful tax subsidies	\$5 billion to \$6 billion
Eliminate tax subsidies related to energy production	\$5 billion
Eliminate tax subsidies for alternative fuels or energy conservation	\$4 billion to \$6 billion
Total Savings	\$40 billion to \$50 billion

Concerns about Environmentally Motivated Taxes

Market-based strategies to achieving environmental goals while simultaneously reducing the deficit have a clear advantage in terms of economic efficiency and the more appropriate pricing of environmentally harmful or environmentally beneficial activities, but there are remaining factors to consider in evaluating the overall merits of environmentally motivated tax policies.

Distributional effects

Most taxes on energy have some inherent regressivity in them—that is, they tend to impose higher relative burdens on households with lower ability to pay. Energy taxes approximate consumption taxes, because almost all consumer goods require energy in their production, and consumption is a larger fraction of income for lower-income households. But environmentally motivated taxes—such as a carbon tax that would price fossil fuels and goods produced with fossil fuels more intensely than other consumer goods—are more discriminating in steering consumption to more socially efficient choices and encouraging people to avoid paying the tax by making better choices. The burden is not as unavoidable as it is with a broad-based, indiscriminate consumption tax, and the avoidance strategies are precisely the kind of reaction the tax is intended to elicit.⁸¹

Any regressivity associated with an environmentally motivated tax should not be a reason to modify the tax to totally exempt lower-income households—for then the right price signals are undone. Instead, the effects of these policies on the relative prices of different forms of energy, or on choices about the intensity of energy use, should be preserved, with any mitigation of the adverse effects on the after-tax income levels of households limited to pure compensations that do not affect relative prices.

In fact, if environmental taxes are used to reduce the deficit, at least some of such compensation for lower-income and younger households may already be built in, as the burden of deficits is thought to fall disproportionately on such households through downward pressure on government spending and higher interest rates, and through the burden of a higher federal debt that must eventually be paid. Even if one interprets the benefits of deficit reduction as distributed broadly across the current population, i.e., as a fixed dollar amount of benefit to each American, this benefit will be progressive relative to income (a higher percentage of a lower income).

A CBO study written in 2000 considered the net benefits to households of a relatively ambitious carbon tax set at a rate of \$100 per mtce.⁸² The study considered various methods of revenue recycling—returning some of the tax revenues generated to households—including a scenario where the revenues raised through government auction are returned to households as a lump-sum rebate—a fixed dollar amount per household. The lump-sum rebate case can be considered a reasonable interpretation of the distributional effects of a carbon tax that is used to reduce the deficit.⁸³ The analysis found that although the carbon tax on its own was quite regressive (with relative burdens on the bottom income quintile that were nearly double those on the top quintile), the carbon tax combined with the lump-sum rebate was highly progressive, placing the largest relative burdens on the highest income group and actually making the bottom two quintiles (the bottom 40 percent of households) better off. Returning the revenues back to households in a lump-sum manner, however, still managed to limit the net burden on the highest-income households to less than one percent of their income.

Ian Parry found a similar, although smaller, reversal of the regressivity of the carbon tax even assuming proportional revenue recycling, where revenues are returned to households in proportion to income—another reasonable interpretation of how households would benefit from deficit reduction.⁸⁴ Parry emphasizes that the progressivity of the overall policy hugely depends on the government holding most or all of the value of the permits and capturing those rents as tax revenue, rather than handing out the permits for free. In other words, just pricing carbon appropriately—to reflect social costs—won't insure a progressive as well as an efficient policy. Progressivity requires that the value of the carbon permits be broadly returned to households (explicitly or implicitly), rather than captured solely by the stockholders of the carbon-emitting firms. Deficit reduction is in fact one way of implicitly returning the value of those permits back to all Americans.

The regressivity associated with higher energy taxes also must be weighed against the value of improvements in environmental quality and how that benefit is distributed across low- versus high-income households. A recent survey on the distributional effects of pollution-control policy concludes that low-income households appear to bear the disproportionate share of existing environmental risks, but there is less evidence that such households would benefit disproportionately from policies that improve environmental quality.⁸⁵ The authors of the survey conclude that how the tax revenue is used (e.g., for deficit reduction or for cuts to various preexisting taxes) is likely to be the more significant factor in determining the net distributional effects of the overall policy.

Finally, the distributional effects of new environmentally motivated taxes should not be considered in isolation from other revenue-raising policies contained within an overall deficit-reduction strategy. Any remaining concern about the regressivity of these taxes may justify revisiting other recent tax cuts that only benefit the richest of households. Moreover, while offsetting the regressivity of a new tax with some sort of rebate would only decrease the revenue yield, offsetting it by repealing some existing tax cuts that are also regressive (but less efficient) would raise more revenue.

Effects on competitiveness

Proposals for higher taxes on energy always bump up against arguments that such taxes will hurt the U.S. economy by raising producer costs and consumer prices. Producers who face higher taxes on the use of their fossil fuel inputs will reduce their output, will earn lower profits, and will likely pass on at least a portion of their higher costs to consumers through higher output prices. Consumers will purchase fewer of these goods, matching the reductions in producer output. This effect on energy-intensive industries taken in isolation, and repeated economy-wide, may very well lead to a small decrease in GDP. But the higher relative costs for producers that heavily rely on fossil fuels will be offset with increased production in industries that do not use fossil fuels so intensely, and with innovation in the heavily taxed industries to move toward cleaner production methods. This is precisely the goal in sending the right price signals in terms of environmental costs and benefits: Market forces lead to a reallocation of resources away from dirtier activities and toward cleaner activities.

Moreover, the tax revenue from the mix of environmental taxes would not be thrown away, nor given away as extra profits. By emphasizing the push over pull approach as much as possible in order to raise revenue from the policy, such revenue can be used either to reduce preexisting taxes or as I urge, to reduce the deficit. Moving from giving away permits to a revenue-recycling option is already a positive move from an economic growth standpoint, but using the revenues to reduce the deficit would produce even larger gains. Recent U.S. historical evidence has demonstrated that government savings are a critical component of national savings and that they move together—private saving does not move to offset what is done through the federal budget. In turn, it is a basic theoretical and empirical fact that national savings contribute to the size and growth of the economy. The economic benefits of reducing deficits and the public debt are large compared to any potential economic costs associated with the reallocation of resources from dirty to clean activities.

Internationally, the argument that higher energy taxes would hurt U.S. competitiveness is weak, because energy prices are already significantly higher in other countries compared with the United States, and climate change policy in many of those countries (particularly the European countries) will keep expanding over time. If anything, U.S. international competitiveness and economic security have been hurt by a dependence on foreign capital to finance deficit spending. Since early 2001, about 75 cents of each additional dollar of debt held by the public has gone abroad, and foreigners now hold more than 40 percent of the stock of Treasury securities currently outstanding.

Overall effects

The success of an environmentally motivated tax strategy is difficult to predict because the United States has little experience in getting energy prices up to socially efficient levels and hence in knowing how consumers and producers will respond. There are certainly unique aspects of the American way of life that make international evidence a faulty indicator. The production-side response also depends on how much technological innovation is spurred on and implemented as a result of the new taxes.

Policies perceived as permanent will be more successful at generating responses, especially over the longer run. But along with supply and demand responding more to the higher prices over time, there will be a longer-term erosion of the revenue source for a given level of taxation. This shift away from the taxed activities (the "dirtier" forms of energy) should be viewed as a positive nonetheless—it is the achievement of the first of the two double dividends. In addition, if these new taxes are first introduced at a less-than-socially optimal rate and phased up gradually, as recommended in this paper, the revenue received (and the reduction of deficits) could be maintained or even increased, without compromising the progress toward environmental policy goals. It is possible that both dividends would flourish over time.

Summary

The United States currently stares into the jaws of two enormous challenges to the well-being of future generations: The threat to their economic security posed by record-high deficits and an ever-increasing public debt, and the threat to the quality of their environment caused by global warming and excessive dependence on fossil fuels. An environmentally motivated tax policy would address both challenges. Tax bases that include some combination of fossil fuels provide plenty of revenue potential as well as a way to improve the efficiency of natural resources use.

Environmental taxes are often criticized as being anti-growth and regressive. But dedicating green tax revenues to reducing the debt would transform this environmental policy into an economic and progressive policy as well. The package of tax changes suggested in this paper would go far to promote economic growth, energy security, and environmental quality—providing a better life for all Americans, including and especially those yet to be born.

Revisiting Recent Tax Cuts and Fixing the AMT

Any serious attempt to reduce the deficit through tax policy cannot ignore recent tax legislation that has substantially worsened the budget outlook. Even if many of the changes to the tax base described earlier in this paper were pursued, the structure of tax rates applied to the tax base should be considered as well. The tax cuts enacted during the 2001 to 2004 time period consisted primarily of reductions to income tax rates. In the context of deficit reduction, policymakers ought to consider whether such cuts and any resulting increases in economic activity have been worth the cost of lost revenue and higher budget deficits and, given the verdict, whether reversing some of those cuts might be one of the easiest and most productive ways to trim the deficit and raise national savings.

One need only look through the biennial budget outlook volumes produced by CBO since 2001 to conclude that the recent tax cuts have cost trillions of dollars and are responsible for about half of the legislative component of the deterioration of the ten-year budget outlook.⁸⁶ Economist Peter R. Orszag calculates that if the tax cuts are extended without being offset, and if they are not reduced over time by the expanding reach of the AMT, they will increase the federal debt by \$5 trillion in 2015—or 25 percent of that year's GDP.⁸⁷

Some conservatives argue that the tax cuts really don't cost as much as those budget estimates imply, because those estimates are based on an analysis that does not account for any positive effects of the tax cuts on the level of macroeconomic activity. But any growth effects of the tax cuts have been very small, as the Treasury Department has itself recently acknowledged, so it is now widely rejected that the tax cuts came anywhere close to "paying for themselves." ⁸⁸ Tax cuts financed by deficits may boost the economy initially (namely through higher consumption), but by reducing national as well as public saving serve to weaken growth in the long run. CBO has estimated that the economic effects of even a clean 10 percent income tax cut—an

unrealistically efficient tax cut—could only offset the revenue loss by between 1 and 22 percent over the first five years and at most 32 percent over ten years.⁸⁹

Given that the 2001 to 2004 tax cuts are the single largest legislative factor contributing to the deteriorating budget outlook since 2001, revisiting these tax cuts (most of which officially expire at the end of 2010) to consider moving toward a rate structure somewhere between pre-2001 law and the full version of the cuts could offer a significant payoff. The recent dynamic analyses of the responses to changes in tax policy suggest that some rollback toward pre-2001 law to boost the marginal tax rates faced by the highest-income households would result in little discouragement of economic activity and yet large increases in revenue.⁹⁰ Thus the economic benefits from deficit reduction would far outweigh any economic costs associated with higher tax rates, and on net, economic growth would be encouraged—not discouraged—by such changes.

Moreover, the closer to pre-2001 law the country is willing to move, the more likely that the revenue raised would also be sufficient to pay for reform, or even repeal, of the AMT. The tax cuts resulted in many more households paying the AMT, leading to expensive AMT-relief provisions. Revisiting the tax cuts provides an opportunity to permanently fix the AMT.

Recommendations for Revisiting the 2001 to 2004 Tax Cuts

A package of partial rollbacks of the 2001 to 2004 tax cuts would produce a total potential revenue gain of about \$80 billion to \$100 billion per year (table 3) within the first five years of policy change (over the 2008 to 2012 period). Such a package would include the following four changes to the tax code.

1. *Return income tax rates to 2002 levels*, which would generate \$30 billion to \$40 billion per year and \$156 billion over the five-year period 2006 to 2010 (these figures would be higher over the 2008 to 2012 period).91 This option is considered by CBO as a way of broadly distributing an increase in marginal tax rates among most income-tax payers. It would reinstate and make permanent the marginal tax rates for the individual income tax established by the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) for tax year 2002. For 2002, EGTRRA specified a new 10 percent rate bracket, and rates for the higher brackets (27, 30, 35, and 38.6 percent) that were each 1 percentage point lower than the rates in effect prior to EGTRRA. Currently the marginal rate structure is much lower than this with the top four brackets taxed at 25, 28, 33, and 35 percent marginal rates. Thus, returning rates to 2002 levels implies raising these four brackets by 2 to 3.6 percentage points compared to current law for the next few years. Because EGTRRA specified that rates would eventually be cut more at the highest income categories, reversing most of these cuts would raise taxes more for higher-income households, even measured relative to income-that is, this option would be a progressive change.

Besides enhancing progressivity, the arguments for this option are that it would raise substantial amounts of revenue over the next several years and yet would keep tax rates lower than pre-2001 levels and hence lower in the future than under the strict current-law baseline (when the tax cuts expire at the end of 2010). Making the tax structure permanent would also decrease uncertainty and simplify households' financial planning. The primary argument against this option is that the immediate boost to marginal tax rates could discourage economic activity such as labor supply and saving, although there is little evidence that at marginal rates below 40 percent small increases have much negative effect.⁹²

There are other variants on this option that are ways to even further direct the increased taxes toward higher-income households (providing greater progressivity), while still raising substantial amounts of revenue. For example, policymakers could choose to go back to pre-2001 law for just the top one or two marginal tax rate brackets. A rollback of just the top two income tax rates would raise \$30 billion to \$35 billion per year. Another option is to establish a new "surtax" on incomes at the very top of the income distribution—effectively a new tax bracket at the very top. Bringing the top marginal income tax rate back up only for taxable incomes over \$1 million would raise between \$15 billion and \$20 billion per year.⁹³

- 2. Repeal capital gains and dividends tax cuts from 2003 act, adding about \$30 billion to \$35 billion per year to the Treasury (over the 2008 to 2012 time period) compared to the Tax Policy Center baseline.⁹⁴ Arguments for this option are similar: The provision would raise substantial amounts of revenue in a very progressive manner, while there is little evidence that the 2003 cuts had a positive influence on economic growth. Capital gains and dividend income are concentrated in high-income households (78 percent of this income goes to households with income over \$200,000⁹⁵). These cuts have had few short-term economic benefits, and even if they were to result in increased growth in the long run, these benefits would be outweighed by the harmful effects of higher deficits.
- 3. Set and freeze (make permanent) the estate tax at its 2009 level (\$3.5 million exemption and a 45 percent tax rate). Such a policy would generate \$15 billion to \$20 billion per year in additional revenues (over the 2008 to 2012 time period) relative to full repeal.⁹⁶ EGTRRA specified a gradual phase down of the estate tax, to full repeal in 2010 (followed by expiration of all of EGTRRA at the end of 2010). Compared with a baseline that includes permanent extension of the 2001 to 2004 tax cuts, this option would raise substantial revenue while leaving only the very wealthiest of households paying the estate tax. Compared with current law in the current year (\$2 million exemption and 46 percent top rate for 2006), immediate implementation of the 2009 exemption level and rate (\$3.5 million and 45 percent) would be a tax cut. But compared with permanent estate tax repeal (continuing 2010 policy), this option would cost only about half as much over the first ten years and would exempt all but about seven thousand estates from the tax.

A bolder proposal with even greater revenue potential would be to let the estate tax revert to pre-2001 law (either when EGTRRA expires or sooner). This would yield \$40 billion to \$45 billion per year relative to full repeal.⁹⁷

Proponents for permanent estate tax repeal argue that the tax is overly burdensome to small businesses and family farms, yet according to the Tax Policy Center, at the 2009 exemption level of \$3.5 million (or \$7 million per couple), 110 farms and businesses and only 30 small farms and businesses would have been subject to the estate tax in 2004. Less than 1 percent of estate tax revenue in 2004 would have been paid by small farms and businesses at this level. On the other hand, 97 percent of the estate tax would have been paid by the top 1 percent income group.⁹⁸

There is also very little evidence that estate taxes discourage saving or economic growth. The effects of estate tax repeal on private saving are ambiguous, but even if private saving were to increase, the resulting increase in the deficit would mean a large

decrease in government saving, leading national saving to decrease with repeal. Furthermore, experts believe that permanent repeal would reduce charitable giving. According to CBO, freezing the estate tax at the 2009 level would have reduced charitable contributions and bequests in 2000 by less than 3 percent, while repealing the estate tax would reduce giving by 6 to 12 percent.⁹⁹

4. Reform or repeal the individual AMT in a revenue-neutral manner, which may use up the additional revenue generated from the increase in rates suggested above. The 2001 to 2004 tax cuts were passed without any accompanying change to the structure of the individual AMT. Because under current law the AMT is not indexed for inflation, the number of households who would become subject to the AMT was already scheduled to grow over time. But because a household's AMT status depends on their liability calculated under the ordinary income tax compared with their liability under the broader AMT base, cuts to the ordinary income tax that operate on deductions and credits disallowed under the AMT will only result in more households being pushed onto the AMT—and not receiving the benefit of the ordinary income tax cuts. According to CBO, the number of taxpayers subject to the AMT will grow from one million in 2001 to 30 million (20 percent of all taxpayers) in 2010 under 2004 law.¹⁰⁰ In addition, the AMT will increasingly penalize married couples with dependent children, rather than the high-income earners it was designed to target.¹⁰¹ This appears to save money on the cost of the tax cuts, but only if policymakers are willing to see more and more taxpayers being denied those cuts.

Since the 2001 tax cut, policymakers have enacted only temporary changes to the AMT to hold down its growth. Unless a more permanent fix to the AMT is put in place, its ever-expanding reach (and policymakers' short-term attempts to control it) will represent an ongoing and growing burden on the federal budget that can only be postponed—not avoided. That is why the President's Advisory Panel on Federal Tax Reform chose to address the AMT problem head on by requiring that AMT repeal be a necessary part of their recommendations.¹⁰²

Scholars at the Tax Policy Center have proposed a revenue-neutral AMT reform that would re-target the AMT toward very high-income taxpayers and aggressive tax shelters—as the AMT was intended to do.¹⁰³ This proposal would allow dependent exemptions and personal nonrefundable tax credits, eliminate the AMT exemption phase-out, and index the exemption level. Those changes would be paid for by raising the AMT's marginal tax rate from 28 percent to 33.5 percent and eliminating the preferential rates for capital gains and dividends under the AMT. This proposal would be budget neutral and highly progressive, and is estimated to cut the number of AMT households in 2010 by 90 percent.

Alternatively, the AMT could be completely repealed, and the cost of such repeal could be paid for by raising marginal tax rates under the ordinary income tax. The rollback of personal income tax rates to 2002 levels would fall a bit short of the rate adjustments needed, but a proportional rate increase that would be revenue-neutral would still leave almost all households with marginal tax rates below pre-2001 law.¹⁰⁴

Table 3. Partial Rollback of 2001 to 2004 Tax Cuts

(in billions of current dollars)

	2006	2007	2008	2009	2010	Five-Year
Return tax rates to 2002 levels ^a	22.4	32.2	31.7	33.8	35.5	155.6
Repeal capital gains and dividends cuts ^b	23.1	25.7	26.7	27.7	28.8	132.1
Freeze estate tax at 2009 level ^c	12.6	13.5	14.1	16.3	16.5	73.0
Total savings	58.1	71.4	72.5	77.8	80.8	360.7

a. CBO, 2005b, option #4.

b. Estimates based on Joint Committee on Taxation (JCT) revenue estimates for 2006 to 2008, grown for 2009 and 2010 (current-law baseline for JCT estimates assumes capital gains and dividend cuts expire at the end of 2008), using a growth rate from 2007 to 2008 of 3.9 percent. See CBO, 2005b, option #3, Rivlin and Sawhill, 2004, and Joint Committee on Taxation, 2003.

c. Freeze begins in 2009. Tax Policy Center table T06-0214.

Summary

These proposals to revisit and rollback the 2001 to 2004 tax cuts have the potential to raise approximately \$80 billion per year—or about \$45 billion per year if used to pay for AMT reform. Moreover, if the rate changes described here were coupled with the \$250 billion worth of proposals to broaden the tax base described earlier in this paper, the revenue yield would be more than the sum of the parts. Broadening the tax base is an essential part of any strategy for efficiency-enhancing tax reform in that it helps keep marginal tax rates low. But with deficit reduction as a goal, rate increases need to be considered as well and pursued wherever the economic costs are low relative to the benefits of the improved budget outlook.

Adding a Value-Added Tax for the Longer Run

The revenue proposals already described in this paper would go far to reduce the deficit, *if all of them were in fact enacted.* Unfortunately, many revenue proposals that make sense from an economic and social welfare standpoint do not pass muster from a political standpoint. Those holes in the tax base get there for a reason and are hard to plug once they are in place, so many policymakers believe it is easier to start over rather than make incremental changes to a very complicated and admittedly inefficient existing tax system that nonetheless has a constituency behind every tax preference that contributes to the mess. Fundamental tax reform is one approach to starting over, but it still requires getting those constituencies to give up their favorite parts of the existing system—even if the pain is more broadly shared.

So another policy strategy for raising revenue more efficiently, while avoiding taking on popular provisions in the current tax code, is to propose a new, broad-based tax that would be clean, comprehensive, and would add to the existing revenue system. The best option fulfilling these criteria seems to be an add-on value added tax, or VAT, as recommended by several tax policy experts, including William G. Gale of Brookings. Gale estimates that a broad-based VAT, one with only a few exclusions, would generate net revenues of about 0.4 percent of GDP for each 1 percentage point of tax, so that a 10 percent VAT, for example, could raise an additional 4 to 5 percent of GDP in revenue.¹⁰⁵

The VAT has the advantage of being a very broad-based tax that is relatively simple to administer (it is used in more than one hundred countries). As a consumption-based tax it would encourage saving more than the existing income tax—which is really a hybrid of an income tax and a consumption tax—does. One disadvantage of the VAT is that as a consumption-based tax it tends to be regressive in incidence (taxes are a higher share of income for lower-income households), but this is more problematic when the VAT is the main source of revenue rather than a supplement (where the incidence of the new tax can be offset by changes to the main revenue sources). The President's Advisory Panel on Federal Tax Reform discussed and found some merit in considering a partial replacement of the income tax with a VAT, but chose not to include it in their final recommendations and rejected a full replacement of the income tax with a VAT or any other pure consumption-based tax.

Gale believes that in the near future policymakers will have to consider this type of new revenue source in order to fund the inevitably higher costs associated with health care that the government will have to bear—that "extracting another 5 to 10 percent of GDP in revenues out of the current individual and corporate income tax system would be extremely difficult" without raising rates "too high to be economically sound."¹⁰⁶ Gale suggests that the VAT could even be earmarked to cover Medicare and Medicaid costs in order to make the public more aware of the costs of those programs and their willingness to pay for them.

Conclusion

Although taxes are not responsible for the enormous long-run fiscal challenges facing our nation in the years to come, tax policy can certainly work to either exacerbate the problem or alleviate it. In recent years, tax cuts have been a major contributor to the deteriorating budget outlook. Their direct cost was high and they were ineffective at holding down federal spending or growing the economy sufficiently to do anything but increase the federal deficit. By adding trillions of dollars to the federal debt just before the baby boomers start to retire, tax policy has been on a fiscally reckless course.

Even if the major entitlement programs are ultimately reformed, the aging population makes at least some increase in government spending over the longer run inevitable, and responsible politicians will need to propose how they will pay for it. This paper has described many opportunities to raise additional revenue that can be pursued fairly immediately—including improving the collection of what is already owed; broadening the tax base in ways that actually improve the efficiency of the tax system; implementing new tax policies that would benefit the environment while reducing the deficit; and revisiting the recent tax cuts to consider rate adjustments that appropriately weigh the potential trade-offs among the goals of deficit reduction, efficiency, and equity. Adopting some combination of these justifiable tax policy changes could easily eliminate deficits within five years. Over the longer run, the federal government will likely need to turn to new, broad-based sources of revenue, such as an add-on value-added tax.

Endnotes

1. Congressional Budget Office (CBO), 2005b; CBO, 2003.

2. Internal Revenue Service (IRS), "New IRS Study Provides Preliminary Tax Gap Estimate," press release IR-2005-38, March 29, 2005; Internal Revenue Service, "IRS Updates Tax Gap Estimates," press release IR-2006-28, February 14, 2006.

3. From discussion at a Brookings Institution seminar on this paper held on October 19, 2006, and conversations with Mark Mazur and Alan Plumley.

4. Olson, 2006b.

5. Urban-Brookings Tax Policy Center, "Salary and Wages 1999–2004; 2001, Individual Income Tax, All Returns: Total Income, Salaries and Unemployment, by Size of Adjusted Gross Income" (www.taxpolicycenter.org/ TaxFacts/TFDB/Content/PDF/source_salary.pdf); Urban-Brookings Tax Policy Center, "Capital Gains 1999– 2004; 2001, Individual Income Tax, All Returns: Capital Income, by Size of Adjusted Gross Income"

(www.taxpolicycenter.org/TaxFacts/TFDB/Content/PDF/source_capital.pdf).

6. Sheffrin and Triest, 1992.

7. Mazur, 2006; Brostek, 2006.

8. Treasury Inspector General for Tax Administration (TIGTA), 2006.

9. Mazur, 2006.

10. The statistics on sources of the tax gap come from Mazur, 2006 and IRS, 2006.

- 11. Brostek, 2006, p. 17.
- 12. Rossotti, 2002.

13. Dodge and Soled, 2005. Dodge and Soled's estimates are actually over a ten-year time horizon.

14. Government Accountability Office (GAO), 2006; Olson, 2006a.

15. Joint Committee on Taxation, 2006a.

16. Brostek, 2006, pp. 11–12.

- 17. Olson, 2006b, p. 29.
- 18. Brostek, 2006, p. 11.
- 19. George, 2006, pp. 19–20.
- 20. Olson, 2006b, pp. 16, 29.
- 21. George, 2006.
- 22. Owens and Hamilton, 2004, p. 361.
- 23. Rossotti, 2002; see also Burman, 2003.

24. Plumley, 1996, pp. 35–36; Dubin, Graetz, and Wilde, 1990, pp. 395, 396, 405. Mazur (2006) places the factor between three and ten.

- 25. Kinsey, 1992.
- 26. Olson, 2006b.

27. In recent testimony before the Senate Committee on Finance Subcommittee on Taxation and IRS Oversight, the National Taxpayer Advocate cited an NRP finding that only 3 percent of successful audits uncovered "deliberate / intentional" misreporting. See Olson, 2006a. Several expert witnesses in the hearing openly disputed the value of reported metric. Indeed, it is not clear that this figure represents more than an indication of whether the taxpayer admitted (in the course of an audit) to intentional misconduct. See U.S. Senate, 2006.

- 28. Edwards, 2006; Edwards, 2003.
- 29. Wagner, 2006.
- 30. Goolsbee, 2004, p. 124.
- 31. Brostek, 2006.
- 32. Olson, 2006b.
- 33. Walker, 2006, p. 10.
- 34. Determined using the absolute number of audits rather than per capita audits.
- 35. GAO, 2005.
- 36. Joint Economic Committee, 1999.
- 37. The website address is www.expectmore.gov.
- 38. Greenspan, 2005.

39. More information on the Concord Coalition's Fiscal Wake-Up Tour, which includes participants from the Brookings Institution and The Heritage Foundation in addition to the Comptroller General, is available at www.concordcoalition.org/events/fiscal-wake-up/index.html.

40. President's Advisory Panel on Federal Tax Reform, 2005. The mortgage interest credit is limited to an amount associated with an average regional price of housing, and the charitable contributions deduction is subject to a 1 percent of income floor.

41. President's Advisory Panel on Federal Tax Reform, 2005, p. 79.

42. Joint Committee on Taxation, 2006b.

43. In fact, progressivity should not really be a concern here, because the level of corporate taxable income does not correlate that well with the size of the corporation, and because ultimately people, not firms, bear the burden of the corporate tax which tends to fall primarily on capital income. Hence, the corporate tax is sufficiently progressive regardless of the rate structure.

44. The production activities deduction is described in Joint Committee on Taxation, 2004b and in Gravelle, 2005. According to Joint Committee on Taxation (2004a), the deduction was scored at a cost of about \$7 billion per year in fiscal year 2009, but rises to \$12 billion per year by fiscal year 2014.

45. CBO, 2005b, revenue option #45.

46. CBO, 2003.

47. Organization for Economic Cooperation and Development (OECD), 2001; and the OECD economic instruments database, "More Information on Environmentally Related Taxes, Fees and Charges" (www2.oecd.org/ecoinst/queries/TaxInfo.htm [accessed May 24, 2006]).

48. Hoo and Ebel, 2005.

49. Based on average gasoline price of just over \$1 per gallon in the fall of 1993 compared with around \$3 in August 2006 and \$2.30 by October 2006 (data from www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html [accessed October 31, 2006]).

50. Fischer and Toman, 2000.

51. CBO, 2005b.

52. CBO, 2003.

53. CBO, 2005b, option 32; Lazzari, 2006.

54. Lazzari, 2006.

55. See, for example, Friends of the Earth et al., 2004; and Donald L. Barlett and James B. Steele, "A Magic Way to Make Billions," *Time*, March 6, 2006.

56. Joint Committee on Taxation, 2006b.

57. Fischer and Toman, 2000, p. 12.

58. Dinan, 2006, p. 17.

59. Fullerton and Metcalf, 1998.

60. And conversely, the potentially negative economic effects from raising marginal tax rates from a fairly low starting point (less than 50 percent) are small compared with the economic gains from raising public and national saving—as was experienced in the late 1990s. See *Economic Report of the President, 2001*, chapter 2; and Goolsbee, 1999.

61. This approach is known as "cap-and-trade with safety valve." A similar approach has been suggested by scholars at RFF; using the same tax imposed in 2010 they estimate a slightly smaller revenue stream of \$26 billion per year. See Parry, 2002; Burtraw and Portney, 2004; Hanson and Sandalow, 2006; Dinan and Shackleton, 2005; CBO, 2005b, p. 338; and U.S. Department of Energy, 2006b.

62. Parry and Darmstadter, 2004.

63. Based on revenue estimates for the gasoline tax option in CBO (2005b, revenue option #48) and a moderate price elasticity of demand for gasoline (of -0.5).

64. See Parry and Small, 2004, and CBO, 2005b.

65. In recent years many researchers have argued vigorously on the superiority of government auctions of allowances rather than any method of handing them out to the private sector for free. Peter Cramton and Suzi Kerr (2002) summarize that "auctioning is superior to any of these methods [of free distribution], because it allows reduced tax distortions, provides greater incentives for innovation, provides more flexibility in distribution of costs, and reduces the need for politically contentious arguments over the allocation of rents."

66. Dinan and Rogers, 2002; Parry, 2003. 67. U.S. Department of Energy, 2006b.

68. Parry, 2002.

69. Dinan and Shackleton, 2005; U.S. Department of Energy, 2006b.

70. In present discounted value over the period 2010 to 2030; the simple sum of annual revenues would be significantly greater.

71. Petroleum products contribute nearly half of carbon dioxide emission. See U.S. Department of Energy, 2006c.

72. In 2005, U.S. coal production was 99.8 percent of U.S. coal consumption. See U.S. Department of Energy, 2006c, table 1.

73. Parry and Darmstadter, 2004.

74. According to EIA statistics, about two-thirds of oil consumption is used for transportation purposes, and in turn, about two-thirds of transportation use is in the form of gasoline for motor vehicles. See, for example, U.S. Department of Energy, 2006a and 2005.

75. N. Gregory Mankiw, "Raise the Gas Tax," Wall Street Journal, October 20, 2006.

76. OECD, 2005.

77. Parry and Small, 2004.

78. CBO, 2006, pp. 7–8 and figure 2-2.

79. CBO, 2002, p. 17, box 3.

80. CBO, 2005b.

81. The more discriminating the environmentally motivated tax, however, the more difficult it becomes to assess the ultimate economic incidence of the tax, as this will depend on the "general equilibrium" effects of the tax and how substitutable or complementary the taxed activity is to various inputs and outputs. See Fullerton, 2005. 82. CBO, 2000; Dinan and Rogers, 2002.

83. In fact, a lump-sum tax is the interpretation of the burden of higher deficits taken by William Gale and Peter Orszag in their distributional analysis of the 2001 to 2004 tax cuts. See Gale and Orszag, 2004b.

84. Parry, 2003. Gale and Orszag (2004b) also look at this proportional interpretation of the burden of deficits. 85. Parry et al. 2005.

86. Center on Budget and Policy Priorities, 2006. This analysis of CBO data indicates that since January 2001, the tax cuts have comprised 51 percent of the five-year 2001 to 2006 cost of legislation, followed by 33 percent due to increases in defense and homeland security spending, 10 percent due to increases in entitlement spending, and 7 percent due to increases in domestic discretionary programs.

87. Orszag, 2006, pp. 7-8.

88. Office of Management and Budget, 2006, pp. 3–4; these dynamic effects were estimated by the Treasury Department. Also see Horney (2006) for a translation of those estimates into a revenue impact. Under Treasury's analysis, accounting for the macroeconomic feedback effects encouraged by lower marginal tax rates, the revenue cost of the tax cuts is reduced by less than 10 percent. Also see Gravelle, 2006.

89. CBO, 2005a.

90. See, for example, Gale and Orszag, 2004a; Furman, 2006.

91. CBO, 2005b, revenue option #4.

92. Goolsbee, 1999; Gravelle, 2006.

93. Urban-Brookings Tax Policy Center, "Partial Rollback of Individual Income Tax Cuts Benefiting High-Income Earners, Static Impact on Individual Income Tax Liability and Revenue, 2006-15," table T05-0161, September 30, 2005; Urban-Brookings Tax Policy Center, "Rollback of Individual Income Tax Rates, Static Impact on Individual Income Tax Liability and Revenue, 2005-15," table T05-0161, October 18, 2005. Tables available at www.taxpolicycenter.org.

94. See CBO 2005b, revenue option #3 for extension; Rivlin and Sawhill, 2004; and Joint Committee on Taxation, 2003.

95. Derived from Urban-Brookings Tax Policy Center, "Distribution of Qualifying Dividends and Capital Gains, 2005" table T05-0073, May 5, 2005.

96. Urban-Brookings Tax Policy Center, "Current Law and Estate Tax Proposals: Effect on Returns and Tax Liability, 2007-16," table T06-0214, July 27, 2006.

97. Urban-Brookings Tax Policy Center, "Estate Tax Returns and Liability, 2001-2015," table T05-0119, July 6, 2005.

98. Burman, Gale, and Rohaly, 2005b.

99. McClelland and Greene, 2004.

100. Williams, 2004.

101. Burman, Gale, and Rohaly, 2003.

102. President's Advisory Panel on Federal Tax Reform, 2005.

103. Burman, Gale, Rohaly, 2005a.

104. Burman, Gale, Rohaly, 2005a, pp. 13-15 and table 4.

105. Gale, 2007.

106. Gale, 2007.

References

Brostek, Michael. 2006. "Tax Compliance: Opportunities Exist to Reduce the Tax Gap Using a Variety of Approaches." GAO-06-1000T. *On a Closer Look at the Size and Sources of the Tax Gap* Hearing. U.S. Senate Committee on Finance, Subcommittee on Taxation and IRS Oversight. July 26.

Burman, Leonard. 2003. "Testimony." Waste, Fraud, and Abuse Hearing. U.S. House of Representatives, Committee on Ways and Means. July 17.

Burman, Leonard, William G. Gale, and Jeffrey Rohaly. 2005a. "The Expanding Reach of the Individual Alternative Minimum Tax." Washington, D.C.: Tax Policy Center, May.

Burman, Leonard, William G. Gale, and Jeffrey Rohaly. 2005b. "Options for Reforming the Estate Tax." Washington, D.C.: Tax Policy Center, April 18.

Burman, Leonard, William G. Gale, and Jeffrey Rohaly. 2003. "The AMT: Projections and Problems." *Tax Notes* 100 (July 7): 105–117.

Burtraw, Dallas and Paul R. Portney. 2004. "A Carbon Tax to Reduce the Deficit." In *New Approaches on Energy and the Environment*, edited by Richard D. Morgenstern and Paul R. Portney, pp. 19–22. Washington, D.C.: Resources for the Future Press.

Center on Budget and Policy Priorities. 2006. "Tax Cuts: Myths and Realities." Washington, D.C.: October 12.

Congressional Budget Office. 2006. "The Economic Effects of Recent Increases in Energy Prices." July.

Congressional Budget Office. 2005a. "Analyzing the Economic and Budgetary Effects of a 10 Percent Cut in Income Tax Rates," December 1.

Congressional Budget Office. 2005b. Budget Options.

Congressional Budget Office. 2003. Budget Options.

Congressional Budget Office. 2002. "Reducing Gasoline Consumption: Three Policy Options." November.

Congressional Budget Office. 2000. "Who Gains and Who Pays Under Carbon-Allowance Trading? The Distributional Effects of Alternative Policy Designs." June.

Cramton, Peter and Suzi Kerr. 2002. "Tradable Carbon Permit Auctions: How and Why to Auction Not Grandfather." *Energy Policy* 30 (March): 333–345.

Dinan, Terry M. 2006. "Evaluating the Role of Prices and R&D in Reducing Carbon Dioxide Emissions." Congressional Budget Office, September.

Dinan, Terry M. and Diane Lim Rogers. 2002. "Distributional Effects of Carbon Allowance Trading: How Government Decisions Determine Winners and Losers." *National Tax Journal* 55 (June): 199-221.

Dinan, Terry M. and Robert Shackleton, Jr. 2005. "Limiting Carbon Dioxide Emissions: Prices Versus Caps." Issue Brief. Congressional Budget Office, March 15.

Dodge, Joseph M. and Jay A. Soled. 2005. "Inflated Tax Basis and the Quarter-Trillion-Dollar Revenue Question." *Tax Notes* 106 (January 24): 453–462.

Dubin, Jeffrey A., Michael J. Graetz, and Louis L. Wilde. 1990. "The Effect of Audit Rates on the Federal Individual Income Tax, 1977-1986." *National Tax Journal* 43 (December): 395-409.

Edwards, Chris. 2006. "The Simple (Tax) Life." Washington, D.C.: Cato Institute, April 17.

Edwards, Chris. 2003. "10 Outrageous Facts About the Income Tax." Washington, D.C.: Cato Institute, April 15.

Fischer, Carolyn and Michael A. Toman. 2000. "Environmentally and Economically Damaging Subsidies: Concepts and Illustrations." Climate Change Issues Brief No. 14. Washington, D.C.: Resources for the Future, August.

Friends of the Earth et al. 2004. Green Scissors 2004: Cutting Wasteful & Environmentally Harmful Spending. Washington, D.C.

Fullerton, Don. 2005. "The General Equilibrium Incidence of Environmental Taxes." Working Paper No. 11311. Cambridge, Mass.: National Bureau of Economic Research, May.

Fullerton, Don and Gilbert E. Metcalf. 1998. "Environmental Taxes and the Double-Dividend Hypothesis: Did You Really Expect Something for Nothing?" *Chicago-Kent Law Review* 73, no. 1: 221–256.

Furman, Jason. 2006. "A Short Guide to Dynamic Scoring." Washington, D.C.: Center on Budget and Policy Priorities, August 24.

Gale, William G. 2007. "Fixing the Tax System: Support Fairer, Simpler, and Adequate Taxation." Brookings Institution, forthcoming.

Gale, William G. and Peter R. Orszag. 2004a. "Bush Administration Tax Policy: Effects on Long-Term Growth." *Tax Notes* 105 (October 18): 415–423.

Gale, William G. and Peter R. Orszag. 2004b. "Bush Administration Tax Policy: Distributional Effects." *Tax Notes* 104 (September 27): 1559–1566.

George, J. Russell. 2006. "Statement of Treasury Inspector General for Tax Administration." On a Closer Look at the Size and Sources of Tax Gap Hearing. U.S. Senate, Committee on Finance, Subcommittee on Taxation and IRS Oversight. July 26. Goolsbee, Austan. 2004. "The TurboTax Revolution: Can Technology Solve Tax Complexity?" In *The Crisis in Tax Administration*, edited by Henry J. Aaron and Joel Slemrod, pp. 124–147. Brookings Institution Press.

Goolsbee, Austan. 1999. "Evidence on the High-Income Laffer Curve from Six Decades of Tax Reform." *Brookings Papers on Economic Activity* 2: 1–47.

Government Accountability Office. 2006. "Capital Gains Tax Gap: Requiring Brokers to Report Securities Cost Basis Would Improve Compliance if Related Challenges are Addressed." GAO-06-603. June.

Government Accountability Office. 2005. "Tax Expenditures Represent a Substantial Federal Commitment and Need to Be Reexamined." GAO-05-690. September.

Gravelle, Jane G. 2006. "Revenue Feedback from the 2001-2004 Tax Cuts." RL33672. Congressional Research Service, September 27.

Gravelle, Jane G. 2005. "Comparison of Tax Incentives for Domestic Manufacturing: 108th Congress." RL32103. Congressional Research Service, January 25.

Greenspan, Alan. 2005. "Statement." *The Economic Outlook and Current Fiscal Issues* Hearing. U.S. House of Representatives, Committee on the Budget. March 2.

Hanson, Craig and David Sandalow. 2006. "Greening the Tax Code." Tax Reform, Energy, and the Environment Issue Brief No. 1. Brookings Institution and World Resources Institute, April.

Hoo, Sonya and Robert Ebel. 2005. "An International Perspective on Gasoline Taxes." *Tax Notes* 108 (September 26): 1565.

Horney, James. 2006. "A Smoking Gun: President's Claim that Tax Cuts Pay for Themselves Refuted by Administration's Own Analysis." Washington, D.C.: Center on Budget and Policy Priorities, July 27.

Internal Revenue Service. 2006. "Tax Gap Figures." February 14. (www.irs.gov/pub/irs-news/tax_gap_figures.pdf)

Joint Committee on Taxation. 2006a. "Additional Options to Improve Tax Compliance." August 3.

Joint Committee on Taxation. 2006b. "Estimates of Federal Tax Expenditures for Fiscal Years 2006-2010." April 25.

Joint Committee on Taxation. 2004a. "Estimated Budget Effects of the Conference Agreement for H.R. 4520." JCX-69-04. October 7.

Joint Committee on Taxation. 2004b. "Description of H.R. 4520, the 'American Jobs Creation Act of 2004'." JCX-41-04. June 10.

Joint Committee on Taxation. 2003. "Estimated Budget Effects of the Conference Agreement for H.R. 2." JCX-55-03. May 22.

Joint Economic Committee. 1999. "Tax Expenditures: A Review and Analysis." August.

Kinsey, Karyl. 1992. "Deterrence and Alienation Effects of IRS Enforcement: An Analysis of Survey Data." In *Why People Pay Taxes*, edited by Joel Slemrod, pp. 259–285. University of Michigan Press.

Lazzari, Salvatore. 2006. "Energy Tax Policy." IB10054. Congressional Research Service, May 25.

Mazur, Mark. 2006. "Statement of IRS Director of Research, Analysis, and Statistics." On a Closer Look at the Size and Sources of Tax Gap Hearing. U.S. Senate, Committee on Finance, Subcommittee on Taxation and IRS Oversight. July 26.

McClelland, Robert and Pamela Greene. 2004. "The Estate Tax and Charitable Giving." Congressional Budget Office, July.

Office of Management and Budget. 2006. Fiscal Year 2007 Mid-Session Review: Budget of the U.S. Government. July 11.

Olson, Nina E. 2006a. "Statement of National Taxpayer Advocate." On a Closer Look at the Size and Sources of Tax Gap Hearing. U.S. Senate, Committee on Finance, Subcommittee on Taxation and IRS Oversight. July 26.

Olson, Nina E. 2006b. "Statement of National Taxpayer Advocate." *The Causes of and Solution to the Tax Gap* Hearing. U.S. Senate, Committee on Budget. February 15.

Organization for Economic Cooperation and Development. 2005. *OECD Economic Surveys: United States.* Paris.

Organization for Economic Cooperation and Development. 2001. Environmentally Related Taxes in OECD Countries: Issues and Strategies. Paris.

Orszag, Peter R. 2006. "Long-term Growth, Government Debt, and Family Incomes." *America's Public Debt: How Do We Keep it from Rising* Hearing. U.S. Senate, Finance Committee, Subcommittee on Long-term Growth and Debt Reduction. September 28.

Owens, Jeffrey and Stuart Hamilton. 2004. "Experience and Innovations in Other Countries." In *The Crisis in Tax Administration*, edited by Henry J. Aaron and Joel Slemrod, pp. 347–379. Brookings Institution Press.

Parry, Ian W.H. 2003. "Are Emissions Permits Regressive?" Discussion Paper 03-21. Washington, D.C.: Resources for the Future, June.

Parry, Ian W.H. 2002. "Are All Market-Based Environmental Regulations Equal?" *Issues in Science and Technology* 19 (Fall): 38–41.

Parry, Ian W.H. and Joel Darmstadter. 2004. "Slaking Our Thirst for Oil." In *New Approaches* on *Energy and the Environment*, edited by Richard D. Morgenstern and Paul R. Portney, pp. 23–27. Washington, D.C.: Resources for the Future Press.

Parry, Ian W.H. and Kenneth A. Small. 2004. "Does Britain or the United States Have the Right Gasoline Tax?" Discussion Paper 02-12. Washington, D.C.: Resources for the Future, September.

Parry, Ian W.H. et al. 2005. "The Incidence of Pollution Control Policies." Related Publication 05-16. Washington, D.C.: AEI-Brookings Joint Center for Regulatory Studies, August.

Plumley, Alan H. 1996. "The Determinants of Individual Income Tax Compliance: Estimating the Impacts of Tax Policy, Enforcement, and IRS Responsiveness." Pub. 1916. Internal Revenue Service.

President's Advisory Panel on Federal Tax Reform. 2005. Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System. Washington, D.C.: November.

Rivlin, Alice M. and Isabel Sawhill. 2004. *Restoring Fiscal Sanity: How to Balance the Budget*. Brookings Institution Press.

Rossotti, Charles O. 2002. "Report to the IRS Oversight Board: Assessment of the IRS and the Tax System." Internal Revenue Service, September.

Sheffrin, Steven M. and Robert K. Triest. 1992. "Can Brute Deterrence Backfire? Perceptions and Attitudes in Taxpayer Compliance." In *Why People Pay Taxes: Tax Compliance and Enforcement*, edited by Joel Slemrod, pp. 193–218. University of Michigan Press.

Treasury Inspector General for Tax Administration. 2006. "Some Concerns Remain About the Overall Confidence that Can Be Placed in Internal Revenue Service Tax Gap Projections." 2006-50-077. April.

U.S. Department of Energy. Energy Information Administration. 2006a. *Annual Energy Review* 2005. DOE/EIA-0384 (2005). July.

U.S. Department of Energy. Energy Information Administration. 2006b. "Energy Market Impacts of Alternative Greenhouse Gas Intensity Reduction Goals." SR/OIAF/2006-01. March.

U.S. Department of Energy. Energy Information Administration. 2006c. Annual Energy Outlook 2006 with Projections to 2030. February.

U.S. Department of Energy. Energy Information Administration. 2005. *International Energy Outlook*. July.

U.S. Senate. Committee on Finance. Subcommittee on Taxation and IRS Oversight. 2006. On a Closer Look at the Size and Sources of Tax Gap Hearing. July 26.

Wagner, Jr., Raymond T. 2006. "Statement of IRS Oversight Board Chairman." On a Closer Look at the Size and Sources of Tax Gap Hearing. U.S. Senate, Committee on Finance, Subcommittee on Taxation and IRS Oversight. July 26.

Walker, David M. 2006. "Tax Gap: Making Significant Progress In Improving Tax Compliance Rests on Enhancing Current RIS Techniques and Adopting New Legislative Actions." GAO-06-453T. *The Causes of and Solutions to the Tax Gap* Hearing. U.S. Senate, Committee on the Budget. February 15.

Williams, Roberton. 2004. "The Alternative Minimum Tax." Revenue and Tax Policy Brief No. 4. Congressional Budget Office, April 15.