

## **The Impact of Tax Reform on Low- and Middle-Income Households**

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Leonard E. Burman  
The Urban Institute  
Tax Policy Center  
Georgetown Public Policy Institute

Chairman Thomas, Ranking Member Rangel, and distinguished members of the Committee. Thank you for inviting me to testify on the principles that should guide efforts to reform the tax system.

I applaud the committee on taking on this crucially important subject. I came to Washington 20 years ago to work for the Treasury Department on what became the Tax Reform Act of 1986. Although far from perfect, that reform was guided from the start by the bedrock tax policy principles of fairness, simplicity, and economic efficiency. Although some parts of the final bill were simple and some weren't, it clearly made the tax system fairer and more efficient. I would be delighted if we could repeat the trick again today, while also making the tax system simpler.

Although I think people exaggerate when they claim that the 1986 Tax Reform has been fully undone in the intervening two decades, the tax code is once again in need of reform. It is needlessly complex. It is riddled with loopholes. It imposes vastly different tax burdens on people with similar abilities to pay. And it does not raise enough revenue to finance current government operations, much less the growing costs of the retirement of the baby boom generation.

In my testimony, I will focus on how the income tax system affects low- and middle-income taxpayers and the potential effects of tax reform on those populations. I have six main conclusions:

- First, despite its flaws and some recent erosion, the income tax is highly progressive. In other words, low- and middle-income families bear much smaller proportional tax burdens than those with high incomes. This mitigates the effects of other regressive taxes, such as federal payroll and excise taxes and state and local sales taxes.
- Second, the income tax code is an important source of income support for low-income households.

- Third, tax reform could help low- and middle-income households by reducing their tax burdens further—both by lowering their rates and by simplifying and consolidating tax benefits to which they are entitled.
- Fourth, some so-called fundamental tax reform proposals could shift the tax burden away from those most able to pay to those least able.
- Fifth, the claimed economic gains from such proposals are speculative at best, based solely on theoretical models that have little relationship to economic reality.
- And, last, systemic tax reform presents the ideal opportunity to bring our fiscal system back into balance. If it closed loopholes under the income tax and used the revenues to reduce the budget deficit, such reform would spur economic growth by making the tax system more neutral, increasing national savings, and lightening tax burdens on future generations.

## I. Current Situation

The President’s executive order establishing the Advisory Panel on Tax Reform called for revenue-neutral tax reform that would advance these objectives: “(a) simplify Federal tax laws..., (b) share the burdens and benefits of the Federal tax structure in an appropriately progressive manner..., and (c) promote long-run economic growth.” Although I think revenue neutrality is a misplaced priority given our current fiscal situation, the President’s objectives stand on the bedrock principles of public finance—simplicity, fairness, and economic efficiency.

Let’s first consider the President’s all-important desire to share the burden progressively and look at how the current federal tax code affects low- and middle-income Americans. Its glaring flaws notwithstanding, the current income tax does have many strengths. To start, it is highly progressive. In 2005, the Tax Policy Center estimates that 87 percent of the individual income tax will be paid by the highest-income 20 percent of households ranked in terms of cash income. (Table 1.) Almost 61 percent will be paid by the top 5 percent. By comparison, the bottom 40 percent of households receives more in refundable tax credits than they pay in taxes on average. Collectively, the bottom fifth receives net tax credits worth 5.5 percent of income; the top 1 percent pays taxes averaging 20.1 percent of income.

Although the estate tax and the corporate income tax are also quite progressive, federal payroll taxes are regressive, consuming a much larger share of income for low- and middle-income households than for those at the top.<sup>1</sup> And here’s the rub: since payroll taxes are the second largest share of revenue after the individual income tax, and much larger than the other federal

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<sup>1</sup> The progressivity of the estate tax is understated somewhat in the table because it is distributed in terms of cash income. Some people who are quite wealthy can have very modest cash incomes—for example, because most of their income is in the form of unrealized capital gains. If households are ranked in terms of economic income (including the imputed income generated by unrealized assets), then 98 percent of the estate tax falls on the highest-income 5 percent of households.

taxes, the overall tax system is less progressive than the income tax. Including state and local taxes—which rely much more heavily on regressive sales taxes—some analysts conclude that the overall tax system is not progressive at all.<sup>2</sup>

Recent federal tax changes have provided important benefits to lower-income households. The Economic Growth and Taxpayer Relief Act of 2001 (EGTRRA) increased the child tax credit (CTC) and made it partially refundable, expanded the earned income tax credit (EITC), increased the standard deduction for married couples, and created a new 10-percent tax bracket.<sup>3</sup> Legislation enacted in 2003 and 2004 sped up the effective date for some of these provisions. Nonetheless, by cutting top individual income tax rates, phasing out the estate tax, cutting the corporate income tax, and expanding opportunities for tax-free saving, the 2001-2004 tax cuts on balance made the tax system less progressive. Measured as a share of income, the top tenth of one percent of taxpayers—that's one in one thousand—got tax cuts 18 times as large as the bottom fifth got. (Table 2.)

Table 2 also shows that households in every income class benefited from the tax cuts, but that view is misleading. Since none of the tax cuts were offset by tax increases or spending cuts elsewhere, it is impossible to say who the winners and losers are. If the resulting budget deficits lead to cuts in programs mostly benefiting middle- and lower-income households, then they and their children will be the big losers. If burgeoning debt starves businesses of capital, tomorrow's families may bear the brunt. If instead middle-class benefits are politically too popular to curtail and Congress can't or won't cut spending, then high-income people may end up worse off than they would have been without the tax cuts.

The bottom line is that it is impossible to assess the winners and losers from tax changes that are not revenue neutral: we cannot gauge the effects of the 2001 to 2004 tax cuts until we see how Congress ultimately finances them.<sup>4</sup>

### **A. How the income tax affects low- and middle-income households**

The tax system is a mixed bag for low- and middle-income households. On the one hand, it is overly complex. Tax filers must fill out numerous worksheets and forms to claim tax credits for working, children, child care, education, and many other activities. On the other hand, these programs provide significant income support for households that are struggling to meet essential needs. A better tax system would not make families jump through so many hoops to get this support, but tax reform that just swept all of these subsidies away to help broaden the tax base would eviscerate income support for low- and middle-income households.

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<sup>2</sup> See McIntyre, Bob. 2004. "Overall Tax Rates Have Flattened Sharply Under Bush: Total Federal, State & Local Rate on Richest Now Only Slightly Higher than on Middle Ranges," Citizens for Tax Justice, April 12. Available at <http://www.ctj.org/pdf/fsl2004.pdf>.

<sup>3</sup> See Leonard E. Burman, Elaine Maag, and Jeff Rohaly, 2002, "The Effect of the 2001 Tax Cut on Low- and Middle-Income Families and Children," available at: <http://www.taxpolicycenter.org/publications/template.cfm?PubID=410465>.

<sup>4</sup> See William G. Gale, Peter Orszag, and Isaac Shapiro, 2004, "Distribution of the 2001 and 2003 Tax Cuts and Their Financing," *Tax Notes*, June 21, pp. 1539-1548.

## 1. Refundable tax credits for low-income families

Low-income families rely particularly heavily on the income tax system. Although they do not benefit from traditional deductions and credits because most do not owe income tax, they do benefit from refundable tax credits, which are available even if a tax filer does not owe income tax.

In fact, the refundable EITC is the largest source of cash assistance for low-income families—bigger in the aggregate than temporary assistance for needy families (TANF) or food stamps. EGTRRA also substantially increased the refundable child tax credit in 2001. In 2005, families could claim a refundable child tax credit up to 15 percent of earnings over \$10,800.<sup>5</sup>

Both of these credits encourage work and help families with children meet basic needs. Since the EITC and CTC phase in with earnings, they encourage labor force participation among low-income single parents. The phase-out of the EITC can discourage a spouse from working, but since most EITC recipients are single heads of household this isn't a major concern.<sup>6</sup> Research suggests that, on balance, the EITC encourages work among recipient households.<sup>7</sup>

These two refundable tax credits now represent a very large portion of income for low-income households with children. The typical household with one eligible child and income between \$10,000 and \$15,000 receives tax credits worth \$2,523, or 22.9 percent of income, in 2005. (Table 3.) A household with two children and the same income receives \$3,764, or 34.5 percent of income, in refundable child tax credits and EITC. For the average household with three or more children, the credits are worth almost \$4,000, or 36 percent of income. Families with incomes between \$15,000 and \$20,000 receive even larger tax benefits, though they amount to a smaller share of income. Even at incomes of \$25,000 to \$30,000, the EITC and CTC boost income by more than 15 percent for families with two or more children.<sup>8</sup>

A very large percentage of households with children receive these benefits. Almost 74 percent of one-child households and 83 percent or more of households with two or more children benefit from the CTC or the EITC or both. Participation is lower for very low-income households because more of them do not have earnings, and for higher income households because more of them have incomes above the phase-out thresholds for the credits. But, among eligible households, participation is very high.<sup>9</sup>

The great value of these credits also poses a risk for tax reform. Any tax reform that eliminated or reduced these credits would devastate low-income households, unless new spending programs

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<sup>5</sup> The threshold is indexed for inflation.

<sup>6</sup> See Nada Eissa and Hilary W. Hoynes, 2004, "Taxes and the Labor Market Participation of Married Couples: The Earned Income Tax Credit," *Journal of Public Economics*, Vol. 88, pp. 1931-1958.

<sup>7</sup> See Nada Eissa and J. Liebman, 1996, "Labor Supply Responses to the Earned Income Tax Credit," *Quarterly Journal of Economics*, Vol. 111, pp. 605-637; and B. Meyer and D. Rosenbaum, 2001, "Welfare, the Earned Income Tax Credit, and the Labor Supply of Single Mothers," *Quarterly Journal of Economics*, Vol. 116, pp. 1063-1114.

<sup>8</sup> Very low-income households without children qualify for a small EITC, but not the CTC. It is worth an average of \$229 for recipient households; only 3 percent of childless households qualify.

<sup>9</sup> See Leonard E. Burman and Deborah Kobes, 2003, "EITC Reaches More Eligible Families Than TANF, Food Stamps," *Tax Notes*, March 17, p. 1769.

were created to provide cash assistance. In fact, although many tax incentives are probably less effective than comparable spending programs, the EITC and CTC have a lot to recommend them. Despite being overly complex, the EITC is a very efficient way to provide cash support for low-income households.<sup>10</sup> Most recipients of the tax credits would be filing returns anyway to get refunds of withheld income taxes, and much of the information about income eligibility is already reported on tax returns. The refundable credits also avoid the stigma associated with traditional welfare programs. And, despite the complexity, filing a tax return is often easier for low-income working families than waiting in line at a welfare office during working hours.<sup>11</sup>

## 2. Tax subsidies for middle-income families

Middle-income families benefit from an ever-growing panoply of social programs that have been injected into the tax code. Among them are credits for childcare expenses, credits and deductions for education, a tax credit for adoption expenses, and itemized deductions for mortgage interest, charitable contributions, state and local income, sales, and property taxes, and exclusions from income for such employer-provided fringe benefits as pensions and health insurance. The nonrefundable tax credits are often of limited value to lower-middle-income taxpayers because they have limited tax liability, and the deductions and exclusions are worth the most to those with the highest incomes. The value of a deduction is equal to the deduction amount multiplied by the marginal tax rate for those who itemize deductions. Since higher income households tend to have more and larger deductions and also the highest marginal tax rates, they get the largest benefits from deductions and exclusions.

The consequences of this hodge-podge of targeted tax benefits are complexity and inequity. Households with similar ability to pay tax can end up owing much different amounts, depending on how many hoops they jump through to qualify for credits and deductions. Table 4 shows that there can be considerable variation in average tax rates for similar families with comparable incomes. The variation arises from differences in use of credits and deductions and whether households are eligible for benefits (for example, based on the age of children). A homeowner in a high-tax state can pay much less tax than a renter in a low-tax state, for example. Variations among lower-income families with children can be enormous, depending on whether they qualify for the EITC and CTC.

Table 5 shows that there is even more variation in effective marginal tax rates—that is, the amount of additional tax paid on a dollar of additional income.<sup>12</sup> The negative tax rates for

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<sup>10</sup> Most EITC recipients use paid preparers to file their tax returns. See Elaine Maag, 2004, “Tax Preparation for Low-Income Households, Knowledge of the EITC,” *Tax Notes*, August 2, p. 555. This is in part a function of the complexity of the EITC relative to the functional capacity of some recipients and partly due to the popularity of refund anticipation loans offered by some tax return preparers.

<sup>11</sup> Janet Holtzblatt and Janet McCubbin, 2004, “Issues Affecting Low-Income Filers,” in Henry J. Aaron and Joel Slemrod, eds., *The Crisis in Tax Administration* (Washington, DC: The Brookings Institution Press): 148-188.

<sup>12</sup> For a discussion, see Leonard E. Burman and Mohammed Adeel Saleem, 2004, “Income Tax Statistics for Sample Taxpayers, 2003,” *Tax Notes*, January 19, pp. 413-418. The Table shows the marginal tax rate on earnings. Marginal tax rates on other forms of income would often be different. Marginal tax rates are calculated by increasing income by a small amount and calculating the increment in tax liabilities after credits per dollar of additional income. The marginal increase in income is the maximum of \$100 and the minimum of one percent of AGI and \$1,000. This is done to smooth out some kinks in explicit and implicit tax rate schedules. The effective

lower-income families and individuals arise from the phase-in of eligibility for the EITC and CTC. The positive tax rates arise from the statutory tax brackets, the phase-out of eligibility for benefits, and the individual alternative minimum tax, which raises effective marginal tax rates for most taxpayers who must pay it.<sup>13</sup>

A major source of variation arises from the notion that every tax incentive must be progressive: the EITC, CTC, education tax incentives, and many other provisions phase out at certain income levels. A major reason why ever more taxpayers must pay the AMT is the phase-out of the exemption allowed to calculate taxable income for AMT purposes, which raises effective marginal tax rates by 25 percent. Although phase-outs reduce the revenue losses from each provision, they also add complexity and make it hard for some families to know in advance whether they will be eligible for a subsidy and, if so, how much. As noted, these phase-outs create hidden tax surcharges that are tantamount to higher statutory tax rates.

To return to the AMT for a moment, a special problem is that it will affect more and more middle-income households in coming years. By 2010, almost all married taxpayers with incomes between \$75,000 and \$100,000 and with two or more children will be subject to this pointlessly complicated tax. Its effect, like that of the phase-outs, is to raise marginal tax rates on most families subject to the tax.

The best thing that tax reform could do for low- and middle-income families would be to consolidate income-support programs and simplify eligibility. To the extent possible, the hidden taxes created by phase-outs and the AMT should be replaced by explicit adjustments to the tax rate schedules or financed by closing loopholes. For example, the phase-out of the CTC at incomes over \$110,000 adds 5 percentage points to marginal tax rates in that income range. A better and equally progressive option would be to eliminate the phase-out and raise statutory tax rates slightly starting at the same income level.

## **II. Effects of tax reform**

The consequence of moving so much economic support into the tax system is that “tax reform” could lead to a massive cut in income support for low- and middle-income families. Base broadening is equivalent to slashing cash transfers.

Base broadening is a good idea, but policymakers would need to adjust refundable credits and tax rates to hold low- and middle-income households harmless, on average. Even then, there would be many winners and losers.<sup>14</sup> Arguably, it might make sense to consolidate cash assistance programs in the tax code into a couple of refundable credits. For example, a 20-percent work tax credit for the first \$10,000 of wages for each nondependent, non-student, adult worker, and a \$1,500 per child fully refundable child tax credit would provide about the same

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marginal tax rates might not add up exactly because of rounding or because the formulae for them are not exactly continuous.

<sup>13</sup> See Leonard E. Burman, 2005, “The Expanding Reach of the Individual Alternative Minimum Tax: Testimony submitted to the United States Senate Subcommittee on Taxation and IRS Oversight of the Committee on Finance,” May 23, available at [http://www.urban.org/UploadedPDF/900812\\_Burman\\_052305.pdf](http://www.urban.org/UploadedPDF/900812_Burman_052305.pdf).

<sup>14</sup> That is an inevitable consequence of revenue-neutral tax reform so not necessarily an impediment.

amount of assistance to a single mother with two children and \$20,000 of earnings as current law. If eligibility for the work credit was based solely on work (and not the presence of children) and all children were eligible for the child tax credit, then administration and compliance would be vastly simplified. All workers would be eligible for the work credit, whether or not they had children, and all households with children would be eligible for the child benefit, regardless of income.<sup>15</sup>

To make that work, tax rates would have to be adjusted to raise the same amount of revenue (effectively “taking back” the credits from higher income households).

But barring such an offset, even fundamental income tax reform could end up hurting the most vulnerable members of society.

## **1. Consumption taxes**

Many tax-reform proposals would shift away from a tax based on income to a tax based on consumption. Such proposals include the value added tax; the flat tax, which is effectively a subtraction-method VAT in which the wage portion of the tax is collected from workers rather than firms and which is somewhat progressive since it exempts some portion of wages; a national retail sales tax, which is collected entirely at the retail stage; and a consumed income tax, which is a progressive variant on the consumption tax.

Although these proposals are often motivated by concerns about complexity and efficiency, they would almost inevitably shift tax burdens onto middle- and/or lower-income groups.

Consumption is a much larger share of income for lower- and middle-income households than for those with high incomes. Data from the Consumer Expenditure Survey suggest that families earning less than \$30,000 (in 2003 dollars) spend virtually all of their income while those with incomes exceeding \$200,000 spend less than 40 percent.<sup>16</sup> (Table 6.) This pattern is most pronounced for necessities, such as food, housing, and clothing. Families earning \$10,000 to \$20,000 spend three-quarters of their incomes on those items, compared with one-sixth of income for those earning more than \$200,000.

Proposals for consumption taxes often include measures to reduce their regressivity, such as demogrants—cash transfers to offset the tax due on a basic level of consumption—for low-income households, tax exemptions for some necessities, or even progressive rates. All of those options raise issues, but most salient is that effective consumption tax rates for high-income households would have to be very large to be as progressive as the current tax system. Compared with a comprehensive income tax, a consumption tax would exclude two-thirds of income from the tax base for the highest-income households. Thus, a consumption tax rate would have to be three times as large as an income tax rate to keep the same tax burden on high-income

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<sup>15</sup> Jonathan Barry Forman, Adam Carasso, and Mohammed Adeel Saleem, forthcoming, "Designing a Work-Friendly Tax System: Options and Trade-offs," Tax Policy Center Discussion Paper Number 20.

<sup>16</sup> Many researchers have commented on the implausible ratio of consumption to income for those with very low incomes. Income is probably underreported, especially for low-income households, which is a special risk because the focus of the survey is consumption rather than income. It also excludes gifts from friends and relatives.

households.<sup>17</sup> Otherwise, the tax burden would inevitably shift onto at least some lower- and middle-income households.

Another way to look at a consumption tax is as an income tax with an unlimited exemption for capital income and no deduction for interest.<sup>18</sup> In other words, the tax base would be wages rather than income. Wages, like consumption, decline as a share of income as income increases. (Table 7.) Wages and salaries make up 28 percent of income for households with incomes over \$1 million in 2005, compared with 68 percent for households with incomes between \$75,000 and \$100,000. Among households headed by someone under age 65, almost 80 percent of income is wages for those with incomes between \$30,000 and \$75,000, compared with 32 percent for those with incomes over \$1 million. Under a wage tax, more than two-thirds of income of the highest-income households would be exempt. In other words, they would either face very high tax rates or end up paying less tax than under an income tax.

In principle, it is possible to design a progressive “consumed income” tax that would maintain the same distribution as current law (on average). But the Treasury Department, after examining such proposals, concluded that they would be much more complex than current law and basically unworkable.<sup>19</sup> The implication is that a real-world consumption tax would inevitably shift the tax burden away from those with the highest incomes to those with more modest incomes. Although some proposals would protect the poor through a demogrant that would simply squeeze middle-class households even more.

Despite concerns about equity, a consumption tax might still be worthwhile if there were huge economic benefits. But there aren’t likely to be. Most of the claimed benefits of switching to a consumption tax come from base broadening and the large tax imposed on existing capital during the transition to the new tax.<sup>20</sup> Base broadening—that is, eliminating all credits and deductions—is probably no more politically feasible under a consumption tax than under an income tax. In fact, in his executive order establishing the Advisory Panel on Federal Tax Reform, the President insisted that incentives be maintained for homeownership and charitable contributions. Most likely, these two tax breaks are simply the tip of the iceberg.

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<sup>17</sup> In fact, our tax system is far from a comprehensive income tax, so conceivably a shift to a comprehensive consumption tax could be accomplished with much more modest rates, but that assumes that the political pressures for exemptions such as for fringe benefits, mortgage interest, charitable contributions, and so on, could be avoided under a consumption tax. It is worth noting, in that context, that the President has insisted that any tax reform retain incentives for homeownership and charitable contributions.

<sup>18</sup> Although this equivalence holds in the long run under certain circumstances, there are significant differences in the two tax bases in the short run. A new consumption tax would increase the price of all consumer goods or reduce the real value of old capital, placing a large burden on older people. A new wage tax would effectively exempt all capital income from tax, effectively granting a large windfall on older people who are living off of their accumulated savings.

<sup>19</sup> See Eric Toder, 1995, “Statement of Eric Toder, Deputy Assistant Secretary (Tax Analysis), Department of the Treasury, Before the Senate Budget Committee,” February 22.

<sup>20</sup> See David Altig, Alan J. Auerbach, Laurence J. Kotlikoff, Kent A. Smetters, and Jan Walliser, 2001, “Simulating Fundamental Tax Reform in the United States,” *American Economic Review*, Vol. 91, pp. 574-595; and Don Fullerton and Diane Lim Rogers, 1993, *Who Bears the Lifetime Tax Burden?* (Washington, DC: Brookings Institution Press).

As for the transition, switching from an income to a consumption tax would effectively devalue all existing capital. For example, if the income tax were replaced with a VAT or a national retail sales tax, the prices of all taxed goods and services would immediately rise by the amount of the VAT. The Federal Reserve Board could tighten the money supply to prevent this price increase, but the resultant increase in interest rates would reduce the value of existing capital. In either case, old people would find that their savings could buy much less than they did the day before the new tax regime was announced. Although such a lump-sum tax is doubtless efficient—effectively, the government is raising revenue by confiscating a portion of outstanding wealth—it is unlikely to be politically feasible.

But if the government provided transition relief (for example, by continuing to allow companies to take depreciation deductions on old capital), tax rates would have to be much higher to make up the lost revenue. Old people would come out ahead, since their capital assets are worth the same amount as before and all future income from those assets is tax-free. But most other groups end up worse off because the higher taxes more than offset gains from a more efficient tax base.

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In fact, it is not a given that a consumption tax would raise economic efficiency more than a similarly comprehensive income tax would. Exempting capital income from tax would eliminate the tax penalty on saving, but raise the burden on labor. The reason is simple: if the return to saving is exempted from the tax base, then taxes have to increase on what is left, which is wages and salaries. If labor supply is very sensitive to taxation, and saving is not sensitive, then a consumption tax could harm the economy in the long run (and in the short run too if there is transition relief).<sup>22</sup> In fact, the economic evidence seems to suggest that both labor supply and saving are relatively insensitive to taxes, so any efficiency gains are likely to be modest.

The models discussed so far are largely based on empirical evidence about responsiveness of savings and labor supply to taxation, but there is another line of argument that relies almost entirely on theory to argue that taxing capital would never be optimal. The relatively simple version of this theory was advanced by Peter Diamond and James Mirrlees.<sup>23</sup> They showed that if there are no restrictions on commodity taxes and if economic profits either do not exist or can be taxed away, then it would never be optimal to tax capital or other inputs to the production process. But, as Joel Slemrod points out, the underlying assumptions behind this oft-cited economic result are extreme.<sup>24</sup> Tax authorities cannot measure economic profits (that is, those profits over and above the “normal” or required return to capital) and, even if they could, it would be politically problematic to apply a 100-percent tax to them.

Similarly, there are many constraints on commodity taxes. For starters, it would be virtually impossible to tax household production (e.g., caring for children, cooking, house cleaning, home repairs, gardening, etc.)—a requirement for production efficiency in the Diamond-Mirrlees set

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<sup>21</sup> See Altig, et al., 2001.

<sup>22</sup> See William C. Randolph and Diane Lim Rogers, 1995, “The Implications for Tax Policy of Uncertainty About Labor-Supply and Savings Responses,” *National Tax Journal*, Vol. 48, pp. 429-446.

<sup>23</sup> See P.A. Diamond and J.A. Mirrlees, 1971, “Optimal Taxation and Public Production I: Production Efficiency,” *American Economic Review*, Vol. 61, pp. 8–27.

<sup>24</sup> See Joel Slemrod, 1990, “Optimal Taxation and Optimal Tax Systems,” *Journal of Economic Perspectives*, Vol. 4, pp. 157-178.

up. Policymakers might also blanch at the notion of assessing high taxes on necessities, such as insulin, even though such taxes are highly efficient since people's demand for life-saving drugs is quite insensitive to price.

A more recent line of argument has been advanced in separate papers by Christopher Chamley and Kenneth Judd.<sup>25</sup> Although mathematically elegant, these models rest on even less realistic assumptions about policy than the Diamond-Mirrlees model. In these models, individuals live forever and have perfect foresight. Exempting capital income from tax in the long run is economically efficient, but only after the government has levied the maximum feasible tax on capital long enough to endow the government with a huge surplus, from which it can finance all future government operations without taxing capital or labor! If people do not live forever or have unlimited ability to borrow, capital owners might strongly object to that transition path. And I would bet that there would not be many votes in Congress for establishing the government endowment fund, much less any feasible mechanism for preventing government from tapping into principal to pay for increased cash transfers or more spending. (Consider the Social Security trust fund as a less ambitious experiment on the feasibility of financing future operations with government endowments.)

Moreover, these models ignore human capital—that is, investments people make in themselves to build skills that will pay future returns through higher wages. Larry Jones, Rodolfo Manuelli, and Peter Rossi showed that if it is optimal to exempt the returns on physical capital, then it is also optimal to exempt the returns on human capital.<sup>26</sup> Indeed, the logical extension of the Judd-Chamley models is that wages should also be exempt from tax. So in this economic utopia, nothing would be taxed!! But, if Congress cannot build a huge endowment, this model provides no practical guide to public policy.

Incredibly, a follow-up paper by Judd argued that in general the optimal tax rate on capital should be negative. In short, not only should capital not be taxed, but tax incentives for investment are warranted. To derive that result, the paper resurrected the heroic assumptions of the Diamond-Mirrlees model.<sup>27</sup>

Utopian models aside, there are other concerns about consumption taxes. If capital is exempt from tax, high-income people will seek out tax shelters to make wages look like capital (as they already do with capital gains). Self-employed people and small businesses will have an incentive to incorporate, pay the owner a low wage, and accumulate large untaxed profits. Some entrepreneurs already do this to avoid the payroll tax.

Not every theoretical argument favors consumption taxation. Shinichi Nishiyama and Kent Smetters argue that a progressive income tax is equivalent to a kind of insurance that is not

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<sup>25</sup> See Christophe Chamley, 1986, "Optimal Taxation of Capital Income in General Equilibrium with Infinite Lives," *Econometrica*, Vol. 54, No. 3, pp. 607-622; and Kenneth L. Judd, 1985, "Redistributive Taxation in a Simple Perfect Foresight Model," *Journal of Public Economics*, Vol. 28, pp. 59-83.

<sup>26</sup> See Larry E. Jones, Rodolfo Manuelli, and Peter Rossi, 1997, "On the Optimal Taxation of Capital Income," *Journal of Economic Theory*, Vol. 73, pp. 93-117.

<sup>27</sup> See Kenneth L. Judd, 1997, "The Optimal Tax Rate for Capital Income is Negative," NBER Working Paper No. 6004.

available in the marketplace; it basically smooths after-tax income.<sup>28</sup> As income varies over time, taxpayers pay lower taxes (as a share of income) in bad years than they do in good. The progressive income tax could be viewed as a flat-rate income tax bundled with an insurance policy that pays off when income falls, offsetting part of the income tax burden. For risk-averse taxpayers, this can be quite valuable.

Perhaps most surprising, in the real world shifting from an income to a consumption tax would not necessarily increase saving, at least not for middle-income families. Currently, middle-income families save mainly by contributing to pensions and 401(k)-type plans. Employees have an incentive to participate because they avoid income tax on contributions. Nondiscrimination rules give employers an incentive to induce lower-income workers to participate. But, under a consumption tax, all saving is exempt from tax so there is nothing special about pensions. Without the inducement of a subsidy, many workers would choose to keep all of their savings in less restrictive accounts. But behavioral economics (the study of how real people, rather than *homo economicus*, behave) suggests that without the restrictions that apply to pension plans people would be much less likely to contribute without the inducements offered by employers and tax savings and more likely to withdraw balances before retirement.

There are also some connections between income taxes and other programs that help low-income families. Many tax and expenditure programs for low-income people (e.g., food stamps and EITC) phase out as income rises. But it does not make sense to phase them out based on consumption or wages only. Would we want to preserve an income tax only for low-income families?

Finally, a federal switch to a consumption tax would undermine state governments' ability to raise revenue. States rely much more on consumption taxes (mostly retail sales taxes) than the federal government does. But if the federal government imposed its own retail sales tax, the combined federal and state rates could be quite high.<sup>29</sup> In consequence, compliance with state sales taxes would fall sharply. But at the same time, if the federal government is no longer collecting income taxes, it would be very hard for the states to maintain their own income tax systems. Further, many of the claimed benefits of simplifying the consumption tax would be lost if states continued to collect income tax. As a result, states would likely have to sharply curtail services, which could further harm low- and middle-income households.

### **III. Conclusion**

Tax reform would be a singular accomplishment if it made the tax system simpler, fairer, and more conducive to economic growth. Good starting points would be fixing the income tax to reduce incentives for inefficient tax sheltering, eliminating or retargeting the individual alternative minimum tax, consolidating income- support programs for low- and middle-income

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<sup>28</sup> Shinichi Nishiyama and Kent Smetters, Forthcoming, "Consumption Taxes and Economic Efficiency with Idiosyncratic Wage Shocks," *Journal of Political Economy*.

<sup>29</sup> See William G. Gale, 2005, "The National Retail Sales Tax: What Would the Rate Have to Be?", *Tax Notes*, May 16, pp. 889-911.

taxpayers, and eliminating complicated eligibility rules and phase-out provisions, adjusting tax rates to raise the desired level of revenue.<sup>30</sup>

But tax reform poses risks for vulnerable populations that have come to rely on the tax system for substantial income support. Broadening the base by eliminating refundable tax credits, for example, would devastate low-income families. Switching the base of the tax system from income to consumption would shift the tax burden away from those most able to pay onto those who are less able. Meanwhile, the claimed economic benefits from such a radical shift reflect questionable unproven assumptions.

Rather than radical tax reform, a surer path to economic growth is to reduce the deficit, which would increase national savings directly (by reducing public dissaving). Tax reform would be an ideal opportunity to address the deficit. Even revenue-neutral tax reform spells tax increases on many Americans. The losers from tax reform may be more willing to shoulder the greater burden if they knew that their children would pay lower taxes and enjoy a healthier economy as a result. And the best way to reduce the deficit would be to close the loopholes that allow businesses and high-income individuals to avoid their fair share of tax.

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<sup>30</sup> More specific proposals to simplify the tax system are in Leonard E. Burman and William G. Gale, 2001, "A Golden Opportunity to Simplify the Tax System," available at: <http://taxpolicycenter.org/publications/template.cfm?PubID=7599>.

**Table 1. Current-Law Distribution of Federal Taxes By Cash Income Percentiles, 2005<sup>1</sup>**

Cash Income Class <sup>2</sup>	Share of Total						Average Effective Tax Rate				
	Cash Income	Individual Income Tax <sup>3</sup>	Payroll Tax <sup>4</sup>	Corporate Income Tax	Estate Tax	All Federal Tax <sup>5</sup>	Individual Income Tax	Payroll Tax	Corporate Income Tax	Estate Tax	All Federal Tax
<b>Lowest Quintile</b>	2.4	-1.4	2.2	1.1	0.2	0.4	-5.5	7.5	1.2	0.0	3.2
<b>Second Quintile</b>	6.3	-1.9	6.9	2.7	0.4	2.2	-3.0	9.1	1.1	0.0	7.2
<b>Middle Quintile</b>	11.4	3.1	14.6	4.1	1.6	7.8	2.6	10.6	0.9	0.0	14.2
<b>Fourth Quintile</b>	19.7	13.2	25.5	8.9	0.9	17.5	6.5	10.8	1.1	0.0	18.4
<b>Top Quintile</b>	60.5	87.0	50.7	82.3	93.6	72.0	14.0	7.0	3.4	0.4	24.7
<b>All</b>	100.0	100.0	100.0	100.0	100.0	100.0	9.7	8.3	2.5	0.2	20.7
<b>Addendum</b>											
<b>Top 10 Percent</b>	44.9	73.2	30.5	74.4	89.5	56.5	15.9	5.6	4.1	0.5	26.1
<b>Top 5 Percent</b>	33.7	60.8	17.1	67.2	83.8	44.4	17.6	4.2	4.9	0.6	27.3
<b>Top 1 Percent</b>	18.6	38.3	4.6	50.8	58.0	26.6	20.1	2.0	6.8	0.7	29.6
<b>Top 0.5 Percent</b>	14.7	30.8	2.8	44.5	49.1	21.5	20.5	1.6	7.5	0.8	30.4
<b>Top 0.1 Percent</b>	8.5	18.0	1.0	32.0	28.8	13.0	20.7	1.0	9.3	0.8	31.9

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0305-1), Table T05-0700,

<http://www.taxpolicycenter.org/TaxModel/tmdb/Content/Excel/T05-0070.xls>.

(1) Calendar year.

(2) Tax units with negative cash income are excluded from the lowest quintile but are included in the totals. Includes both filing and non-filing units.

Tax units that are dependents of other taxpayers are excluded from the analysis. For a description of cash income, see

<http://www.taxpolicycenter.org/TaxModel/income.cfm>

(3) After tax credits (including refundable portion of earned income and child tax credits).

(4) Includes both the employee and employer portion of Social Security and Medicare tax.

(5) Excludes customs duties and excise taxes.

**Table 2. Effect of 2001-2004 Tax Cuts on Effective Federal Tax Rates, by Cash Income Class, 2005<sup>1,2</sup>**

Cash Income Class	Effective Federal Tax Rates (in Percent) <sup>3</sup>		
	Pre-EGTRRA Law	Current Law	Change
Lowest Quintile	3.5	3.2	-0.2
Second Quintile	9.1	7.2	-1.9
Middle Quintile	16.4	14.2	-2.2
Fourth Quintile	20.3	18.4	-1.9
Top Quintile	27.3	24.7	-2.6
All	23.1	20.7	-2.4
<b>Addendum</b>			
Top 10 Percent	28.8	26.1	-2.7
Top 5 Percent	30.1	27.3	-2.7
Top 1 Percent	32.7	29.6	-3.1
Top 0.5 Percent	33.7	30.4	-3.3
Top 0.1 Percent	35.5	31.9	-3.6

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0304-3), Tables T04-0113 and Table T04-0096.

(1) Baseline is pre-EGTRRA law. Includes provisions in EGTRRA, JGTRRA, and WFTRA affecting the following: marginal tax rates; the 10-percent bracket; the child tax credit; the child and dependent care credit; the AMT; the standard deduction, 15-percent bracket, and EITC for married couples; tax rates on long-term capital gains and dividends; pension and IRA provisions; expansion of student loan interest deduction (excludes other education provisions); and estate tax exemption, rates, and state death tax credit.

(2) Tax units with negative cash income are excluded from the lowest quintile but are included in the totals. For a description of cash income, see <http://www.taxpolicycenter.org/TaxModel/income.cfm>

(3) Average federal tax (includes individual and corporate income tax, payroll taxes for Social Security and Medicare, and the estate tax) as a percentage of average cash income.

**Table 3. Participation and Benefits from Earned Income Tax Credit (EITC) and Child Tax Credit (CTC) by Number of Children and Cash Income Class, 2005<sup>1</sup>**

Cash Income Class (thousands of 2005 dollars) <sup>2</sup>	No Children			One Child			Two Children			Three of More Children		
	Percent Who Benefit	Tax Units With Benefit		Percent Who Benefit	Tax Units With Benefit		Percent Who Benefit	Tax Units With Benefit		Percent Who Benefit	Tax Units With Benefit	
		Average Credit (\$)	Percent of Income		Average Credit (\$)	Percent of Income		Average Credit (\$)	Percent of Income		Average Credit (\$)	Percent of Income
<b>Less than 5</b>	14.7	193	7.8	69.1	956	34.2	60.7	1,104	39.8	26.9	1,158	45.2
<b>5-10</b>	14.7	323	5.0	84.6	2,036	30.6	81.9	2,587	37.1	68.6	2,495	37.0
<b>10-15</b>	8.1	116	1.2	88.5	2,523	22.9	93.0	3,764	34.5	84.5	3,975	36.0
<b>15-20</b>	0.7	143	0.9	93.6	2,664	17.6	95.5	4,348	28.6	91.1	4,379	29.0
<b>20-25</b>	0.3	152	0.7	96.0	2,403	12.6	97.4	4,248	21.9	98.4	4,305	22.2
<b>25-30</b>	0.2	100	0.4	96.7	1,815	7.8	98.7	3,800	16.2	97.7	4,228	17.8
<b>30-40</b>	0.1	214	0.7	87.8	1,188	4.1	98.6	2,787	9.5	99.0	3,611	12.1
<b>40-50</b>	0.0	314	0.7	73.9	1,025	2.8	93.0	1,933	5.2	96.6	2,925	7.7
<b>More than 50</b>	0.0	177	0.2	55.0	957	1.5	73.6	1,694	2.4	82.8	2,666	3.6
<b>All</b>	3.4	229	3.4	73.9	1,603	4.8	83.3	2,585	6.0	85.9	3,156	6.4

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0305-3A).

(1) Calendar year. Baseline is current law without the EITC and CTC.

(2) Tax units with negative cash income are excluded from the lowest income class but are included in the totals. For a description of cash income, see <http://www.taxpolicycenter.org/TaxModel/income.cfm>

(3) Includes both filing and non-filing units. Tax units that are dependents of other taxpayers are excluded from the analysis.

**Table 4. Variation in Average Tax Rates by Marital Status and Number of Children, 2005**

Cash Income Class	Tax Units	Mean	Standard Deviation	Percentile	
				5th	95th
<b>\$15,000 to \$20,000</b>					
Married Filing Jointly	2,368,415	-4.03	9.14	-27.93	0.00
Singles and HOH	8,502,452	-3.35	10.82	-27.04	5.90
MFJ 0 Children	1,867,464	0.03	0.41	0.00	0.00
MFJ 1 Child	210,763	-13.79	7.11	-19.99	0.00
MFJ 2+ Children	290,188	-23.02	10.41	-31.63	0.00
Singles and HOH 0 Children	6,291,330	2.59	2.59	0.00	6.60
Singles and HOH 1 Child	1,212,148	-15.59	3.97	-19.96	-8.32
Singles and HOH 2+ Children	998,974	-25.97	4.44	-31.54	-19.47
<b>\$50,000 to \$55,000</b>					
Married Filing Jointly	1,630,697	3.29	3.25	-2.06	7.93
Singles and HOH	2,120,734	8.55	3.98	1.15	13.20
MFJ 0 Children	851,275	4.91	2.69	0.00	8.06
MFJ 1 Child	336,897	3.61	1.74	0.39	5.74
MFJ 2+ Children	442,525	-0.07	2.49	0.39	5.74
Singles and HOH 0 Children	1,566,384	10.03	3.00	4.40	13.30
Singles and HOH 1 Child	375,533	5.87	2.24	2.55	8.98
Singles and HOH 2+ Children	178,817	1.26	3.35	-6.75	6.11
<b>\$100,000 to \$105,000</b>					
Married Filing Jointly	825,856	7.92	2.89	3.62	12.29
Singles and HOH	219,668	13.24	4.20	2.40	18.40
MFJ 0 Children	383,282	9.58	2.55	4.97	12.65
MFJ 1 Child	169,704	7.85	2.19	4.76	11.47
MFJ 2+ Children	272,870	5.62	1.98	2.12	8.96
Singles and HOH 0 Children	182,038	13.73	4.00	5.75	18.42
Singles and HOH 1 Child	28,181	10.91	4.49	2.40	15.37
Singles and HOH 2+ Children	9,449	10.69	3.88	1.28	15.73

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0305-3a).

Notes: MFJ refers to married filing joint returns; HOH refers to returns filing as head of household

**Table 5. Variation in Marginal Tax Rates by Marital Status and Number of Children, 2005**

Cash Income Class	Tax Units	Mean	Standard Deviation	Percentile	
				5th	95th
<b>\$15,000 to \$20,000</b>					
Married Filing Jointly	2,368,415	-0.89	7.21	-14.95	7.61
Singles and HOH	8,502,452	7.72	15.97	-14.93	25.86
MFJ 0 Children	1,867,464	0.33	2.38	0.00	0.00
MFJ 1 Child	210,763	-2.66	12.52	-33.83	15.95
MFJ 2+ Children	290,188	-7.43	14.80	-40.00	6.05
Singles and HOH 0 Children	6,291,330	9.16	15.33	0.00	17.39
Singles and HOH 1 Child	1,212,148	7.53	16.12	-14.99	25.96
Singles and HOH 2+ Children	998,974	-1.12	16.81	-40.00	21.02
<b>\$50,000 to \$55,000</b>					
Married Filing Jointly	1,630,697	15.59	9.31	0.00	24.98
Singles and HOH	2,120,734	21.79	7.31	14.97	30.95
MFJ 0 Children	851,275	16.30	11.52	0.00	27.72
MFJ 1 Child	336,897	15.39	3.35	14.79	22.25
MFJ 2+ Children	442,525	14.38	7.26	14.79	22.25
Singles and HOH 0 Children	1,566,384	23.87	6.91	14.97	33.82
Singles and HOH 1 Child	375,533	16.16	4.22	14.97	27.21
Singles and HOH 2+ Children	178,817	15.45	5.74	6.05	30.72
<b>\$100,000 to \$105,000</b>					
Married Filing Jointly	825,856	22.24	5.69	14.98	28.19
Singles and HOH	219,668	25.78	6.50	24.97	30.58
MFJ 0 Children	383,282	23.28	5.39	14.99	26.40
MFJ 1 Child	169,704	22.66	5.69	14.99	32.63
MFJ 2+ Children	272,870	20.51	5.70	14.98	27.00
Singles and HOH 0 Children	182,038	25.96	4.99	24.98	29.75
Singles and HOH 1 Child	28,181	24.00	12.50	14.98	33.52
Singles and HOH 2+ Children	9,449	27.61	4.85	14.98	30.95

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0305-3a).

Notes: MFJ refers to married filing joint returns; HOH refers to returns filing as head of household

**Table 6. Consumption as a Percentage of Income, by Type**

<b>Income</b>	<b>All Expenditures</b>	<b>Food</b>	<b>Housing</b>	<b>Clothing</b>	<b>Necessities</b>
<b>\$1 - 10K</b>	254	52	81	10	143
<b>10K - 20K</b>	137	25	45	5	75
<b>20K - 30K</b>	104	18	31	4	54
<b>30K - 40K</b>	87	15	24	4	43
<b>40K - 50K</b>	75	13	21	4	37
<b>50K - 75K</b>	68	11	18	3	32
<b>75K - 200K</b>	56	8	15	3	26
<b>Over \$200K</b>	37	5	9	2	16

Source: Tax Policy Center calculations based on Consumer Expenditure Surveys from 1993:1 to 1998:2

Note: Income is composed of earned and unearned income, and government transfers.  
All items in 2003 dollars.

**Table 7. Wages and Salaries as a Percent of Income, by Cash Income Class, 2005<sup>1</sup>**

Cash Income Class (thousands of 2005 dollars) <sup>2</sup>	All Tax Units			65 and Over <sup>4</sup>			Age Under 65		
	Tax Units <sup>3</sup>		Wages and Salaries as a Percent of Income	Tax Units <sup>3</sup>		Wages and Salaries as a Percent of Income	Tax Units <sup>3</sup>		Wages and Salaries as a Percent of Income
	Number (thousands)	Percent of Total		Number (thousands)	Percent of Total		Number (thousands)	Percent of Total	
<b>Less than 10</b>	19,560	13.5	43.5	4,083	13.8	4.7	15,477	13.5	56.3
<b>10-20</b>	25,611	17.7	48.6	7,774	26.2	5.3	17,837	15.5	67.0
<b>20-30</b>	19,953	13.8	61.5	4,450	15.0	6.7	15,503	13.5	76.9
<b>30-40</b>	15,289	10.6	67.5	2,570	8.7	7.0	12,719	11.1	79.7
<b>40-50</b>	11,738	8.1	67.8	2,043	6.9	11.3	9,696	8.4	79.6
<b>50-75</b>	20,700	14.3	67.1	3,918	13.2	15.5	16,782	14.6	79.1
<b>75-100</b>	11,936	8.3	68.0	1,969	6.6	16.9	9,967	8.7	78.1
<b>100-200</b>	14,432	10.0	66.6	2,014	6.8	17.1	12,418	10.8	74.6
<b>200-500</b>	3,797	2.6	53.0	664	2.2	14.1	3,133	2.7	61.4
<b>500-1,000</b>	642	0.4	40.2	120	0.4	11.6	523	0.5	46.8
<b>More than 1,000</b>	335	0.2	27.9	68	0.2	10.7	267	0.2	32.0
<b>All</b>	144,573	100.0	58.5	29,690	100.0	12.7	114,884	100.0	68.6

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0305-3a).

(1) Calendar Year.

(2) Tax units with negative cash income are excluded from the lowest income class but are included in the totals. For a description of cash income, see <http://www.taxpolicycenter.org/TaxModel/income.cfm>

(3) Includes both filing and non-filing units. Tax units that are dependents of other taxpayers are excluded from the analysis.

(4) For married couples, at least one spouse is age 65 or over.