



## The Trouble with Taxing the Young

By Alan D. Viard

*Shifting the tax burden from younger workers to older workers would ease the crushing fiscal burden confronting future generations, give the young access to funds that they might otherwise be forced to borrow at high rates, and improve work incentives. One way to implement such a policy would be to exempt workers younger than thirty from the 15.3 percent Social Security/Medicare tax while raising the rate for older workers to 18–19 percent to maintain revenue neutrality.*

Current fiscal policies are slated to impose heavy fiscal burdens on today's youth and future generations, who will pick up the tab for the unfunded entitlement benefits being paid to retirees and those approaching retirement. Easing this looming burden on future generations will eventually require difficult decisions, such as scaling back the scheduled growth of Social Security and Medicare. As we prepare for the tough choices ahead, we should pursue policies that provide a down payment on fiscal reform, minimize the coming pain, and offer as many economic benefits as possible.

One appealing approach is a revenue-neutral shift in the tax burden away from younger workers toward older ones. This option would lower the lifetime tax burden of today's youth and future generations by giving them a longer interval in which to save their money before paying it to the government. While it would increase lifetime tax burdens for older workers at the time the policy takes effect, the sacrifices would be less politically explosive than those required by meaningful Social Security and Medicare reform.

A tax shift toward older workers would also offer other economic advantages. It would give cash to young people who might otherwise need to borrow at high rates in private markets. It would improve work incentives, because tax

cuts for young workers tend to have more powerful incentive effects per dollar of revenue loss. A good way to achieve these gains would be to exempt younger workers from payroll and self-employment taxes, with an offsetting rate increase for older workers.

### A Tradeoff between the Living and Those Yet to Be Born

The impact of such a policy on different generations can be illustrated with a simple example. Consider a world in which individuals can borrow as much as they need at the same interest rate that they can earn on their savings and in which taxes do not affect work incentives. In later sections of this *Tax Policy Outlook*, I revise these assumptions to examine additional gains offered by the policy.

For simplicity, assume that the government raises tax revenue each year equal to a fixed share of GDP and that all tax revenue is collected each year from people of a single age. Suppose, for example, that the government has been taxing people in the year they turn thirty, but is considering an abrupt policy change in 2008 that would tax people in the year they turn fifty. How would such a change affect the people born in different years?

First, the bad news. The new policy would have an unpleasant, if straightforward, effect on the people born between 1958 and 1977. Because these

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people would be between thirty and fifty years old when the reform takes effect, they would end up being taxed twice. They would have already paid taxes in their thirtieth year under the old policy, and they would pay them again at age fifty under the new policy. The double payment by this group would be the transition cost of the policy change.

The policy change would offer good news, though, for the individuals born in and after 1978, including all of those yet to be born. As we will see below, shifting taxes to a later age would lower their lifetime tax burden. This point has been made in a number of papers, including a recent paper by the author of this *Outlook*.<sup>1</sup> Since the effects are similar for all these young and unborn individuals, it is easiest to consider those born in a single year, such as 2000. Would they be better off being taxed at age fifty, in 2050, or at age thirty, in 2030?

The later payment has one strike against it—it would be larger. Since taxes are a fixed share of GDP, the tax bill would grow over time as GDP grows. If GDP grows 3 percent each year, after adjusting for inflation,<sup>2</sup> it would be 81 percent larger in 2050 than in 2030, reflecting twenty years of 3 percent growth (with compounding), and taxes would also be 81 percent higher. The individuals born in 2000 would therefore pay 81 percent more if they were responsible for the 2050 tax bill than if they were responsible for the 2030 tax bill. Rather than paying \$100 at age thirty, they would pay \$181 at age fifty.

But that is only half of the story. By waiting until age fifty, these workers would have an extra twenty years to save and invest in private-sector capital markets. Suppose that capital markets offer a 5 percent annual rate of return, over and above inflation.<sup>3</sup> Then, the \$100 not paid in taxes at thirty could be invested to yield \$265 by age fifty, reflecting twenty years of 5 percent returns (with compounding). That would be enough to pay the \$181 tax at that age, with \$84 left over. Paying at age fifty would be the better deal, after all.<sup>4</sup>

The policy change therefore poses a tradeoff. Although it taxes the initial group of older workers twice, it benefits today's youth and all of the generations yet to come.

The policy change would also prompt people to save more in preparation for their larger—but later—tax payments. The extra savings would gradually increase the capital stock and the size of the economy. With a larger capital

stock, workers would be more productive, which would boost wages. But the rate of return on capital would fall as the capital stock expands due to diminishing returns.

The economic effects of this capital accumulation would deepen the tradeoff between the different generations. For today's youth and future generations, who have most or all of their working lives ahead of them, the wage increases would outweigh the decline in the rate of return, reinforcing their gains from the policy. For today's older workers and retirees, who have already done most or all of their work and are more dependent on their accumulated savings, the decline in the rate of return would outweigh the wage increase, reinforcing their losses from the policy.

All of the effects are reversed for a policy change in the other direction. Suppose that, instead of abruptly pushing the tax payment back to age fifty, the policy change abruptly pushes it up to age twenty. Those born after 1988 would then be harmed, because they would pay their taxes earlier, losing out on ten years of investment returns. But those born from 1978 through 1987 would gain because they would never be taxed; they would have been too young to pay tax before the reform and would be too old to pay tax after it. A move in this direction would reduce saving, as people would have paid taxes earlier in life, rather than saving to pay taxes later. This discussion of a tax shift away from the old is not hypothetical. On September 18, Democratic presidential candidate Barack Obama proposed eliminating income taxes on seniors making less than \$50,000, which would take 22 million elderly citizens off the tax rolls.<sup>5</sup>

## Facing the Tradeoff

While the simple example described above is artificial, the effects that it illustrates are quite real. The tradeoff continues to hold for more modest—and more realistic—changes that alter the fraction of lifetime taxes paid in various years. Any change that delays tax payments harms some of the people alive at the time, but helps young and future cohorts. The tradeoff also emerges whether the change is made gradually or abruptly.

The tradeoff is similar to that posed by Social Security and Medicare reform. Because those programs tax the young and transfer the tax revenue to the old, scaling them back involves taking less from the young and giving less to

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the old, like the tax change in the example. The change is beneficial to the young and to future generations because they can save their money at market returns. But those who are older when the change takes effect bear a transition cost; they paid into the larger system while young but collect benefits from the scaled-back system.

In view of the tradeoff, evaluating the proposed tax shift (or any reform to Social Security and Medicare) requires difficult value judgments. Are the sacrifices the current middle-aged or the current old will have to make justified by the gains to today's youth and to future generations?

One argument against such reforms is that future generations will probably be wealthier than we are. If a reform simply transferred a fixed amount of resources from us to future generations, it would be hard to justify depriving ourselves for their benefit. But relatively small sacrifices by today's generations will actually provide large gains for our descendants, because the losses of current generations are effectively invested at the 5 percent rate of return on capital and then paid to future generations.

In the end, the key rationale for such a policy is the need to alleviate the crushing burden future generations are slated to bear under current fiscal policies.<sup>6</sup> It is our generation's policy decisions that have placed this heavy burden on future generations, and it is our responsibility to offer relief. Furthermore, there are two other compelling arguments relating to borrowing difficulties and work incentives that strengthen the case for the proposed change.

### Easing Barriers to Borrowing

Several authors have discussed how tax shifts away from the young could affect borrowing difficulties. The most extensive discussions are in a 1987 academic paper by R. Glenn Hubbard, now at AEI and Columbia University, and Kenneth L. Judd of the Hoover Institution,<sup>7</sup> and in a recent academic paper by Erik Hurst of the University of Chicago Graduate School of Business and Paul Willen of the Federal Reserve Bank of Boston.<sup>8</sup> This point has also been discussed by N. Gregory Mankiw of Harvard University and AEI<sup>9</sup> and AEI's Kevin A. Hassett.<sup>10</sup>

In the example above, the young could invest any tax cuts at an inflation-adjusted return of 5 percent. But the tax savings may be much more valuable for those who need to borrow at higher interest rates or who cannot borrow at all.

Consider someone who is spending all of his current income and carrying credit card debt with an interest rate 15 percentage points higher than the inflation rate. Giving this person an extra dollar allows him to earn a real return of 15 percent by paying down a dollar of that high-cost debt—far higher than the 5 percent return previously assumed.<sup>11</sup> Alternatively, consider someone who cannot borrow, but who would be willing to pay up to 20 percent (above inflation) to do so. For this person, then, an extra dollar to spend would be worth as much as if it were invested at a 20 percent real return.

Therefore, it is desirable to give tax cuts to people who are borrowing at high rates or to those who want to borrow but cannot do so. For the most part, these are the young. As Hurst and Willen show, young taxpayers often have significant levels of unsecured debt, including credit card debt. Using data from the 1999 Panel Study of Income Dynamics, a large national survey conducted by the University of Michigan Survey Research Center, they found that 62 percent of households headed by a person aged twenty-two to thirty-nine had some unsecured debt. Of the households with such debt, three-quarters carried a balance greater than one month's worth of the head of household's labor income, and half owed more than two months' income. The average value was equivalent to about seven months' income, reflecting the very high debt loads carried by some young households. The survey data showed that older households had much less unsecured debt.

It makes little sense to collect taxes from households when they are borrowing at high interest rates to maintain living standards or to pay for education. It would be better to collect the taxes from them later in life, after they have worked their way out of debt.<sup>12</sup>

### Providing Work Incentives for the Young

A tax cut for the young would provide even more gains if it lowered their marginal tax rates. Michael Kremer of Harvard University has explained why it is particularly harmful for the young to face high marginal tax rates.<sup>13</sup> N. Gregory Mankiw and Tim Harford of the *Financial Times* have also discussed these effects.<sup>14</sup>

The marginal tax rate is the amount of additional tax imposed if an individual earns an additional dollar of

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income. An earlier issue of *Tax Policy Outlook* discussed economists' belief that the setting of marginal rates should reflect a balance between two considerations.<sup>15</sup> Raising the marginal tax rate at a particular income level decreases work incentives for people at that level, but raises revenue by increasing tax payments for everyone with higher income. The revenue increase is particularly desirable if the people with higher incomes are those who can best afford to pay more. For younger workers, though, the gain from raising marginal tax rates is likely to be small for several reasons.

First, the earnings of young workers are much less dispersed than the earnings of older workers; the wide inequalities that eventually develop among different earners tend to emerge later in life. Due to this lower dispersion, a smaller number of young workers are above any particular income level relative to the number of young workers at that level. So when marginal rates are raised at, say, \$20,000 for young workers, the number of people from whom more revenue is collected (those with earnings above \$20,000) is small, relative to the number of people whose work incentives are harmed by the higher marginal rate (those at \$20,000). It would be better to raise marginal rates at \$20,000 for older workers, for whom the ratio of workers above the income level to those at the income level tends to be higher due to greater dispersion of earnings.

For younger workers, then, marginal rate increases do not raise as much revenue relative to the number of people who face work disincentives. Also, if ability to pay depends on lifetime earnings, the people from whom the revenue is raised—those with higher earnings when young—may not be the people best able to pay. Kremer notes that people with higher earnings when young are often not the people who end up having higher lifetime earnings. Earnings when young are not a strong predictor of later earnings. Again, it would be better to raise marginal rates on older workers, because those workers who have higher earnings when old are more likely to also have higher lifetime earnings.

Kremer also suggests that the young may be more responsive to work incentives than older workers, although he notes that the evidence is not conclusive. In that case, raising their marginal tax rates would be still more harmful.

Kremer does not mention another aspect of the incentive effects: the U.S. tax system imposes relatively heavy taxes on saving, which gives people an incentive to save

less. Since people save by consuming later in life than when they work and earn wages, a penalty on saving induces them both to consume earlier in life and to work later in life. A tax change that gives people incentives to work while young can help undo the latter effect and thereby boost saving.

There is another reason why the incentive effects of cutting taxes for the young merit attention, according to Kremer. Standard economic theory about setting income

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tax rates assumes that if taxes discourage someone from working, the person turns to leisure. The loss to society is merely the tax revenue that would have been collected if he had worked. But a few people who leave the legitimate labor force may instead turn to crime, which is much more harmful to society and makes the disincentive effects a bigger problem. This issue is most relevant for the young;

according to FBI data, 58 percent of all arrests in 2006 were of people twenty-nine or younger.<sup>16</sup> Tax rate cuts for the young would give them stronger incentives for lawful work. Economic theory suggests—and some statistical evidence indicates—that crime would decline in response to such incentives.<sup>17</sup> Of course, such tax changes are not going to have a large effect on crime, but every little bit helps.

Kremer offers one caveat about the incentive effects of marginal rate cuts for the young. Tax cuts that encourage work may draw some young people away from education, rather than from leisure or crime. He notes, however, that the best solution for that potential problem is to ensure that education receives a subsidy sufficient to offset any tax penalty. Higher education already receives a wide array of tax breaks and a large amount of government spending. If these subsidies are not sufficient, they should be increased.

### Payroll Tax Exemption for the Young

What is the best way to cut taxes for the young? We need a tax cut that serves all three of the goals discussed in this *Outlook*: lowering lifetime fiscal burdens for future generations, giving money to those most likely to face borrowing difficulties, and providing work incentives for the young.

The first goal is easy to achieve. Any tax change that puts money into the hands of the young will ease lifetime fiscal burdens for future generations: tax rate cuts, larger tax deductions, or anything else. Even government benefit payments, rather than tax cuts, could be used. Any of these methods could also be used to achieve the second

goal—easing borrowing difficulties—if part of the money reaches lower-income workers, who are most likely to face such difficulties.

Of these methods, though, only rate cuts would also achieve the third goal—improved work incentives. Cutting income tax rates would not be ideal, however, because some low-income workers facing borrowing difficulties do not pay income tax. Since low-income workers do pay the 15.3 percent payroll and self-employment taxes used to finance Social Security and Medicare Part A, relief from these taxes is the best way to reduce taxes on the young.

A specific option discussed in some studies is an exemption from payroll and self-employment taxes for workers below thirty. To maintain revenue neutrality, the tax rate on workers thirty and older would probably need to be raised from 15.3 percent to a rate between 18 and 19 percent.<sup>18</sup> Implementing such an exemption would be feasible, as employers could readily obtain information on employees' ages; indeed, several countries already have reduced rates or exemptions for younger workers.<sup>19</sup> While some adjustments might be needed in the Social Security benefit formula, they should be minor.<sup>20</sup>

As discussed above, the policy change would impose a transition cost. Workers who are thirty or older at the time it would take effect would pay a higher tax rate for the rest of their lives without having enjoyed the exemption during their younger years; even workers in their late twenties would suffer a net loss because they would have only a few years in which to receive the exemption.

But the proposal offers a down payment on lowering the lifetime fiscal burden for the youngest workers today and for all workers yet to come, especially as we prepare for the tougher fiscal reforms that will eventually be required. The proposal also helps workers meet their spending needs while avoiding high-cost credit-card debt and moves more people into the work force. What's not to like?

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## Notes

1. Alan J. Auerbach and Laurence J. Kotlikoff, *Dynamic Fiscal Policy* (Cambridge: Cambridge University Press, 1987), 58–60; Lawrence H. Summers, "Taxation and Capital Accumulation in a Life Cycle Growth Model," *American Economic Review* 71, no. 4 (September 1981): 533–44; Laurence S. Seidman and Kenneth A. Lewis, "The Later You Pay, the Higher the k," *Southern Economic*

*Journal* 69, no. 3 (January 2003): 560–77; Alan D. Viard, "The Welfare Effects of Pay-As-You-Go Retirement Programs: The Role of Tax and Benefit Timing," *Contemporary Economic Policy* 25, no. 2 (April 2007): 282–92.

2. From 1929 to 2006, real GDP grew at a 3.4 percent average annual rate, according to National Income and Product Accounts data. The Congressional Budget Office (CBO) projects that growth will average about 2.7 percent over the next decade. (See CBO, *The Budget and Economic Outlook: An Update* [Washington, DC: CBO, August 2007], 26.) The Social Security trustees project that the growth rate will eventually slow to 1.9 percent, due to slower population growth (Board of Trustees, Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, *The 2007 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds* [Washington, DC: Government Printing Office, 2007], 92). Using a growth rate lower than 3 percent would strengthen the argument made in this *Outlook*.

3. The relevant rate of return is the marginal product of capital: the before-tax return on an extra dollar injected into the capital markets and spread among the available investments, including business plant and equipment, research and training, owner-occupied housing, and net foreign investment. (Although each individual can earn only the after-tax return, the age group can earn the before-tax return if the government rebates the tax revenue from their savings back to them.) Many authors have assumed a 6 percent rate of return, but I use a more cautious rate of 5 percent. I survey estimates of this return in Alan D. Viard, "Pay-As-You-Go Social Security and the Aging of America: An Economic Analysis," Federal Reserve Bank of Dallas *Economic and Financial Policy Review* 1, no. 4 (2002): 4, available at [www.dallasfedreview.org/articles/v01\\_n04\\_a01.html](http://www.dallasfedreview.org/articles/v01_n04_a01.html) (accessed September 24, 2007).

4. The critical factor behind this conclusion is the rate of return on capital being higher than the growth rate of GDP. This condition, which economists call dynamic efficiency, holds for the United States. See Andrew B. Abel, N. Gregory Mankiw, Lawrence H. Summers and Richard J. Zeckhauser, "Assessing Dynamic Efficiency: Theory and Evidence," *Review of Economic Studies* 56, no. 1 (January 1989): 1–19.

5. "Obama Unveils Tax Plan," Associated Press, September 18, 2007.

6. Jagadeesh Gokhale and Kent Smetters, "Fiscal and Generational Imbalances: An Update," in *Tax Policy and the Economy*, 20th ed., ed. James M. Poterba (Cambridge, MA: MIT Press, 2006), 193–223.

7. R. Glenn Hubbard and Kenneth L. Judd, "Social Security and Individual Welfare: Precautionary Saving, Borrowing Constraints, and the Payroll Tax," *American Economic Review* 77, no. 4 (September 1987): 630–46.

8. Erik Hurst and Paul Willen, "Social Security and Unsecured Debt," *Journal of Public Economics* 91, nos. 7–8 (August 2007): 1273–97.

9. N. Gregory Mankiw, "Ax Taxes for Xers!" *Fortune*, March 16, 1998; N. Gregory Mankiw, "Should Taxes Depend on Age?" Greg Mankiw's Blog, April 14, 2006, available at <http://gregmankiw.blogspot.com/2006/04/should-taxes-depend-on-age.html> (accessed September 24, 2007).

10. Kevin A. Hassett, "Ants and Grasshoppers," *Wall Street Journal*, February 7, 2005, available at [www.aei.org/publication21939/](http://www.aei.org/publication21939/).

11. It does not matter whether the taxpayer actually uses the dollar to pay down credit card debt or instead spends the dollar and keeps debt unchanged. If he chooses to spend the dollar rather than paying down the 15 percent–rate debt, he must view the spending as worth at least as much as a 15 percent return on savings. His lifetime gain from receiving the dollar can therefore still be computed using a 15 percent rate of return.

12. A key premise of this argument is that the government can "lend" to taxpayers (by cutting their taxes when they are young and raising their taxes when they are old) more cheaply than private lenders. This is likely to be true, since the government can tax future earnings more easily than private lenders can collect repayment from such earnings. If the government does not have some such cost advantage, then the argument in this *Outlook* breaks down; in that case, as the government "lends" more to a taxpayer, private lenders cut back on what they are willing to lend to them and nothing is gained. For a discussion of these issues, see Douglas Bernheim, "Ricardian Equivalence: An Evaluation of Theory and Evidence," in *NBER Macroeconomics Annual 1987*, ed. Stanley Fisher (Cambridge, MA: MIT Press, 1987), 263–304.

13. Michael Kremer, "Should Taxes Be Independent of Age?" (working paper, Harvard University, Cambridge, MA, 2001, under revision), available through [www.economics.harvard.edu/faculty/kremer/papers.html](http://www.economics.harvard.edu/faculty/kremer/papers.html) (accessed September 25, 2007).

14. See N. Gregory Mankiw, "Ax Taxes for Xers!"; and Tim Harford, "Tax the Middle-Aged!" *Slate*, April 12, 2007, available at [www.slate.com/id/2162823](http://www.slate.com/id/2162823) (accessed September 24, 2007).

15. Alan D. Viard, "The Trouble with Taxing Those at the Top," *Tax Policy Outlook* no. 2 (June 2007), available at [www.aei.org/publication26354/](http://www.aei.org/publication26354/).

16. U.S. Department of Justice, Federal Bureau of Investigation, *Crime in the United States 2006*, September 2007, table 38, available at [www.fbi.gov/ucr/cius2006/data/table\\_38.html](http://www.fbi.gov/ucr/cius2006/data/table_38.html) (accessed October 2, 2007).

17. For a survey of the literature, see Richard Freeman, "Why Do So Many Young American Men Commit Crimes and What Might We Do About It?" *Journal of Economic Perspectives* 10, no. 1 (Winter 1996): 25–42. Kremer provides some additional references.

18. Hurst and Willen indicate that the tax rate would need to be raised by a factor of 1.22. My calculations yielded a factor of 1.21. (Alan D. Viard, "The Welfare Effects of Pay-As-You-Go Retirement Programs: The Role of Tax and Benefit Timing": 286.) Multiplying by 15.3 percent yields a revenue-neutral rate of 18.5 or 18.6 percent. If the change increased work effort, as argued in the text, the resulting revenue feedback would lower the required rate.

19. France reimburses contributions for workers younger than 23 under some conditions and Finland imposes slightly lower tax rates on workers younger than 53. (Social Security Administration [SSA], Office of Policy Data, *Social Security Programs Throughout the World* [Baltimore: SSA, 2006], available at [www.ssa.gov/policy/docs/progdesc/ssptw/](http://www.ssa.gov/policy/docs/progdesc/ssptw/) [accessed September 24, 2007].) Also, Switzerland has a tax rate schedule that rises with age for the occupational pensions portion of its social insurance system. (Swiss Federal Social Insurance Office, "Meaning and Objectives of Occupational Pension Funds," available at [www.bsv.admin.ch/themen/vorsorge/00039/00335/index.html?lang=en](http://www.bsv.admin.ch/themen/vorsorge/00039/00335/index.html?lang=en) [accessed September 24, 2007].)

20. If earnings below age thirty were exempted from Social Security taxes, they would presumably also be excluded from the Social Security retirement benefit computation. That would be only a slight change from current law. Although the current formula considers earnings from any age, it uses only a worker's thirty-five highest-earning years (after adjusting for national wage growth), which generally causes earnings at young ages to be dropped. Some adjustment to the disability benefit rules may be necessary to prevent a benefit loss for workers who become disabled before or shortly after age thirty.