The Merits of Efficient Taxation

By Ira P. Kaminow*

The old foundations of American tax policy have become suspect. Taxes that once promised to finance a great society are routinely criticized for destroying incentives to work and save. And interest in the distribution of tax burdens between rich and poor has, by all appearances, diminished considerably in the past several years. For the moment at least, incentives have replaced equity as the key concern of the tax-reform debate. But many economists believe the incentives issue is overemphasized and would prefer to focus more attention on tax efficiency.

An efficient tax system permits society to meet private and public demands without incurring unnecessary costs—costs which economists label the excess burden of taxation. The *direct* burdens of a tax are the resources lost by the private sector to the government; the *excess burden* is the loss to all of society because resources are wasted and misused in an attempt to avoid taxes. Tax incentives to encourage labor and investment are efficient only to the extent that they lead to the kinds of work-effort and capital that produce the goods we want, when we want them, and at minimum cost. Otherwise, these incentives contribute to the excess burdens of wasted and misused resources.

One recent study concluded, for instance, that though half of all saving in America escapes taxation (or is very lightly taxed), these tax breaks are so ill-conceived on efficiency grounds that they have done nothing to make society better off on the whole. In contrast, estimates of the potential gains from a truly efficient tax system range into the hundreds of billions of dollars. Unfortunately, many of the proposals recently under discussion in the tax-reform debate failed to give due weight to efficiency matters.

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BURDENS AND EXCESS BURDENS

On average, each man, woman, and child in the nation pays Uncle Sam about $3,000 in taxes each year—$3,000 that cannot be spent for rent, food, movies, and bicycles. This is the direct burden, per individual, of the $700-billion Federal tax take. It is part of the finance necessary to pay for what government buys. And while taxes can be reduced if government substitutes other kinds of finance (borrowing or printing money), the burden of government can only be reduced if government spending itself is reduced. A missile does not take less steel, nor a public hospital fewer bricks, if taxes are lower. Shifting government finance among taxes, borrowing, and printing-press money may shift the burdens of government, but it cannot reduce these burdens.

The situation is quite different in the case of the so-called excess burden of taxation. To raise $700 billion a year in revenues, we have developed a complex tax structure that can distort incentives so that what is socially productive often leads to private loss and what is socially inefficient can be privately profitable. This reflects the excess burden of taxation—the burden over and above the necessary shift of resources to the government to finance expenditures. Excess burden includes, for example, work that isn't done because after-tax wage rates are so low, and savings that people forgo in the face of a negligible after-tax return.

The direct burden of taxes may or may not be worthwhile.[1] It all depends on how wisely the government uses the resources. But the excess burden is a dead-weight loss to the economy at large because it reflects a loss to some with no offsetting gain to others, so that society is a net loser. In economists' jargon, the lower the excess burden, the more efficient the tax system and the economy.

Tax efficiency is an old concept that involves careful distinctions between tax revenues and tax structures—that is, between how *much* we collect in taxes and *how* we collect taxes. One useful way to clarify this concept is to compare two kinds of taxes—a lump-sum tax and a tax on income. Unlike an income tax, a lump-sum tax is a flat assessment levied without regard to any measure of economic activity or well-being. Since a lump-sum tax is not tied to people's economic behavior, it imposes no burden beyond the revenue they forgo; there are no high tax rates to discourage work or savings or otherwise impose excess burdens. The direct burden of a lump-sum tax, however, could be extraordinarily heavy and unfair. An equally distributed assessment would mean a tax bite of roughly $12,000 for a family of four, regardless of income or wealth, assuming today's government revenue levels. So most people consider a lump-sum scheme impractical on equity grounds. But, practical or not, the likely effects of such a tax are highly instructive.

Most of us, if slapped with a flat $12,000 tax bill, would try to increase earnings through overtime work, a second family income, or some other means, in order to cushion the tax burden. Contrary to some of today's fashionable rhetoric, high taxes *encourage* work and other productive efforts. And this is as it should be. When people demand more from government, whether because of external events such as war or because of changing perceptions of government's role in society, they should meet at least some of the bigger tax burden by increasing production. The rest will be met by cutting back on private consumption. The combination of additional effort and less private consumption corresponds to the higher total burden of increased government spending.

[1] Spending, taxation, debt, and inflation are highly interrelated, and the costs and benefits of government can be determined only after the size and mix of the four have been analyzed as a unit. This article focuses on the burdens of taxes and devotes little analysis to the costs of inflation and government debt or the benefits of government spending.

Higher tax burdens should also encourage high levels of savings in a lump-sum tax world. We save, for example, to buy homes and cars, to go on vacation, and to fit our children with braces. And we also could save to pay taxes. If lump-sum assessments are expected to come due during retirement, we have to put something aside today to prepare for them. Expectations of higher future tax burdens, just like expectations of increases in other future expenses, should trigger higher private saving.

Imagine now that the hypothetical lump-sum tax is replaced by an income tax (while government spending levels remain the same). In moving from a lump-sum to an income tax, incentives to work and save will be less, since wages and interest payments will be lower on an after-tax basis. Not only do we lose, for private use, the resources transferred to the government (just as we do under the lump-sum tax), but production is lost because of the disincentives. The value of this lost output is part of the measure of the excess burden of the income tax. But the income tax is in no way unique in generating an excess burden. Every tax levied on a useful economic activity imposes an excess burden on society by discouraging that activity.[2]

An efficient tax system will try to keep these distortions to a minimum. But, contrary to what some popular discussions seem to imply, designing such a structure does not involve recreating patterns of work and savings as though government spending didn't exist. Rather the task is to approximate—with due account to fairness and other social objectives—private behavior that would exist under a lump-sum tax. In other words, the tax system should be designed to minimize the impact of tax *distortions* (not of taxes) on private economic decisions. This idea has some rather powerful and diverse implications for evaluating the efficiency of our current tax system and of popular tax-cut proposals.

Consider, for example, the debate surrounding the likely success of supply-side tax cuts. These cuts are aimed at reducing tax rates in the hope of encouraging additional work and saving. Opponents of the cuts are quick to point out that most statistical studies conclude that high taxes have had little or no impact on work or production. Cuts in taxes, they argue, cannot restore what high rates have not taken away.

But there is another way to interpret this evidence. We've just argued that high taxes should increase work effort, production, and savings if they are to efficiently meet large demands for government services. So evidence that our income tax has had little impact on saving and labor supply need not mean that the tax is innocuous. To the contrary, it points directly to the *excess burden* of the tax. When the tax burden grows into the hundreds of billions, we should be working and saving more so that we can pay the tax without unduly sacrificing our private standards of living. That we have not suggests that the overall burden of the income tax rates has entirely offset the tendency to work and save more when our tax obligations increase. This implies that the overall burden of the income tax on our economic well-being must be quite high.

EXCESS BURDENS AND SOME POPULAR TAX PROPOSALS

America's search for a more incentive-oriented tax structure has come down to a number of variations on two major themes: reduce the high marginal tax rates that have weakened incentives to work and to invest, and make additional tax cuts designed specifically to encourage business investment and private saving. Unfortunately, these proposals and their variants are too often evaluated only in terms of their likely impacts on work, saving, and investment. This focus can be extremely misleading.

[2]Taxes on harmful activities provide an excess gain. The use of taxes to discourage undesirable activities is another long-standing issue in tax theory.

Even when taxes have no apparent impact on work, saving, or investment, they can still impose substantial excess burdens. And work, saving, and investment that are used inefficiently or that produce goods no one wants are not very helpful.

Personal Tax Rate Cuts. In 1978, Congressman Jack Kemp and Senator William Roth proposed an across-the-board cut in personal income tax rates of 10 percent a year for three consecutive years. Since then, the idea of a cut in tax rates has moved steadily toward the center stage of American politics. In July, the Congress passed President Reagan's program, which reduces tax rates 25 percent over the next three years.

Some students of tax theory favor a still bolder approach to tax-rate reductions. The idea is to lower the *top* tax rate dramatically, and it's most closely identified with Nobel laureate Milton Friedman, who proposes limiting the top rate to a mere 25 percent.[3] Friedman predicts that slashing the top rate would ease the worst of the income tax's excess burden with little or no revenue loss. He points out that in 1977 only about 13 percent of all Federal revenue came from rates above the 25-percent mark. And with the top rate cut by almost two-thirds from the present 70 percent, the incentives to use revenue-draining tax shelters would decline, perhaps bringing the government even more revenues.

A recent study by Jerry A. Hausman attempted to compare the excess burden under the 1980 tax system with that under the Kemp-Roth scheme and under variants of the Friedman proposal.[4] Some of the estimates are quite interesting. The average married man in Hausman's sample now pays a tax of $1,077. In addition, as a result of tax-induced disincentives to work, he bears an excess burden of $235 or 21.8 percent of his tax bill. Under the Kemp-Roth scheme, the average married man's tax bill would fall to $833; but because his tax *rate* also would fall (by 30 percent), disincentives to work would drop and his excess burden would be only $128. If fully implemented, the Kemp-Roth proposal would yield less revenue than last year's tax law. Therefore, for any given level of government spending, the Kemp-Roth proposal would require a larger government debt or more inflationary printing-press money than would the 1980 law. But both government debt and inflation can impose their own costs and excess burdens on society. So a full comparison of Kemp-Roth with the 1980 tax code would require some measure of these additional costs. Unfortunately, Hausman could not easily measure them, and as he points out, this makes it difficult to make the comparison.

Hausman was able to compare the full excess burdens under last year's law and under Friedman-type alternatives. He designed variants of Friedman's proposal which would match tax revenues under the 1980 tax code dollar for dollar. Under one such variant, the first $4,000 of income would be exempt from any tax. All income over $4,000 would be taxed at a rate of 20.7 percent. According to Hausman, this plan would be superior to 1980 law since it would raise the same revenue but would cut the excess burden of labor supply disincentives in half. Hausman also claims that the tax would be at least as progressive as 1980 law, at least for incomes up to $25,000 or so. While *marginal* tax rates under this scheme are not progressive, *average* tax rates are, because the first $4,000 of income is tax free (see A FLAT TAX RATE . . .).

The case that Friedman, Hausman, and others make for the low-top-marginal-tax-rate plan is remarkably persuasive. With little or no loss of revenue, the plan sharply reduces excess burden while keeping the distribution of the direct tax burden roughly unchanged. In short, the plan seems to offer *substantial gains in efficiency at little cost in*

[3] *Newsweek*, August 18, 1980.

[4] Jerry A. Hausman, "Income and Payroll Tax Policy and Labor Supply," National Bureau of Economic Research, Working Paper No. 610, December 1980.

A FLAT TAX RATE CAN YIELD A PROGRESSIVE TAX SYSTEM

Gross Income	Average Tax Rate	
	Current Law	Alternate Proposal*
$ 4,000	.119	0
8,000	.104	.147
16,000	.155	.173
24,000	.172	.188

*First $4,000 of income tax free, 20.7-percent rate on all income above $4,000.

SOURCE: Hausman, "Income and Payroll Tax Policy and Labor Supply."

terms of equity. It is a proposal that should be taken far more seriously in the future, as we try to make further progress toward the ideal tax system.

Savings Incentives. Among the most hotly debated questions of tax policy is how to treat savings. Should income from savings be taxed like other income? Perhaps, as many have suggested, we should eliminate the tax on saving altogether and tax only consumption expenditures. Or maybe savings should be subsidized. The proper tax treatment of savings is one of the most crucial, but difficult, areas to address from an efficiency perspective. The way savings are treated can magnify or reduce the excess burden associated with other taxes—in particular, a tax on wages. Unfortunately, though, a key piece of information necessary for deciding whether to tax savings or even subsidize them has yet to be uncovered.

A straightforward rule for efficient taxation is easy to state: similar activities should be taxed at similar rates. When the tax-rate differential between two similar activities is large, people will shift out of the useful but heavily taxed activity and into the activity subject to little or no tax. The more people try to beat taxes by finding loopholes, the more will private activity be distorted per dollar of revenue raised.

What does this have to do with the efficiency of taxing income from savings? Each of us is faced with the choice among leisure, current consumption, and future consumption (see THE REAL CHOICES overleaf). An efficient tax system will tax these three activities in such a way as to discourage switching among them to beat the tax man. But if wages are taxed, choices will be distorted away from consumption and toward more leisure. People can avoid the wage tax by not working. The efficiency of a savings tax depends on whether the wage tax, in addition to reducing the total amount of consumption, also distorts lifetime consumption *patterns.* If the wage tax does not distort consumption patterns, but merely

THE REAL CHOICES

The focus on the trade-off between consumption and saving can be quite misleading and can understate the true distortions of taxation. Consider, for example, the case of the identical clones Mervyn and Marvin.

Mervyn lives in the most fictitious of all countries. It has neither inflation nor taxes. Mervyn has been earning $2,000 a month since he started working at 25 and will go on doing so until he retires at age 65. Each month, Mervyn spends $1,670 and puts $330 in the bank at 3-percent interest.

Marvin also lives in a fictitious country. It has no inflation and no wage tax, but all interest income is taxed at 50 percent. Like Mervyn, Marvin will work from age 25 to age 65; he earns $2,000, spending $1,670 and saving $330 at 3 percent (before taxes) every month.

Judging by their consumption and saving decisions, Mervyn and Marvin behave identically and the tax on interest income has had no impact on Marvin's choices. But look again. As the example works out, untaxed Mervyn will have enough in the bank to go on spending $1,670 a month until he is 85. Marvin, who has been taxed on his interest income, retires with far less in the bank. Poor Marvin will be able to spend only about $850 a month if he lives to 85.

When Marvin chose to keep saving unchanged despite the tax, he chose, in a more meaningful sense, to bear his entire tax burden during his retirement. If he had wanted to spread the tax burden a little more evenly between his youth and old age, he might have increased his savings to $400 a month. This would allow retirement spending of $1,264 a month to age 85. Even if the tax encourages Marvin to save more, it still can reduce retirement consumption relative to consumption during the working years. The reason is that part of Marvin's saving will go to pay taxes.

The often discussed trade-off between work and leisure misses the point as well. Leisure (the consumption of time) is an end, work is merely a means to acquire and consume goods sold in the marketplace. The real choice is between the two ends: the consumption of time and the consumption of goods. If a wage tax has no effect on the individual's choice between work and leisure, the entire tax burden falls on the consumption of goods (because lower after-tax income will allow the purchase of fewer goods). To distribute the tax burden more evenly between the consumption of time and the consumption of goods, labor supply must increase, and leisure time must fall.

Analyzing the impact of taxes on economic well-being, therefore, requires unraveling taxation's effect on the quantity and mix of consumption. Today's tax problems should be examined in the context of the trade-off among three basic goods: leisure, current consumption, and future consumption. Work, saving, and investment are of only indirect concern.

reduces all consumption expenditures, present and future, by the same percentage, income from saving should not be taxed. The addition of a tax on saving would do nothing but increase excess burden by discouraging savings (hence future consumption) and encouraging current consumption. Another distortion would be added to that created by the wage tax. Lawrence Summers has estimated the excess burden of a tax on savings (assuming that a wage tax has this proportionate effect on present and future consumption) at 10 percent of each year's GNP or an astronomical total cost of $20 trillion.[5]

Suppose, however, that the wage tax not only reduces consumption spending but also redistributes it over time. Perhaps the tax causes us to cut back on future consumption more than current consumption. Then, the wage tax reinforces the distortions of a tax on savings income: both taxes encourage current consumption and discourage saving

[5]Lawrence Summers, "Taxation and Capital Accumulation in a Life Cycle Growth Model," *American Economic Review*, forthcoming.

for the future. Efficient taxation would, under this condition, actually call for a *negative* tax (that is, a subsidy) on saving for future consumption and thereby offset the distortion of the wage tax on consumption patterns.

The final possibility is that the wage tax discourages present consumption proportionately more than it discourages future consumption.[6] Under this circumstance, efficient taxation implies that a tax on saving will discourage saving and restore more of a balance between present and future consumption spending.

The proper tax treatment of savings from an efficiency perspective clearly depends very much on how taxes on wages affect consumption patterns. Unfortunately, we know very little about this issue. Until further research unravels this mystery, it's difficult to say whether savings should be taxed, exempted from tax, or subsidized.

While there is room for debate on the issue of *whether* savings should be taxed, there is no question but that our *current* tax treatment of savings and investment violates the efficiency rule of similar taxes for similar activities. Differences in taxes applying to savings and investment abound, generating high excess burdens as people take advantage of loopholes to avoid taxes. Some examples:

If an individual buys a home for personal use, no taxes are paid on the implicit rental income; if that same individual sells the home to a corporation and rents it back, the business pays taxes on the rental income. Again, distributed corporate profits are taxed twice (once to the corporation as profits and once to the investor as dividends), but only the corporation pays a tax on undistributed profits. Also, because of the investment tax credit on business equipment, the tax rate on investment in equipment is only about 60 percent of the rate on investment in inventories and factories. Finally, taxes on contributions to employee retirement programs are deferred, while taxes on savings account deposits typically are not.

Several statistical studies show that the wide variation in tax rates on similar activities is indeed a major problem in the tax treatment of savings and investment. Don Fullerton, J. B. Shoven, and John Walley conclude that though half of U.S. savings income is untaxed, the excess burden from disparate rates on different kinds of investment and saving *wipes out any efficiency gains*.[7] They estimate that taxing all personal savings at the same rates and eliminating the corporate income tax (to prevent double taxation of corporate profits) would reduce the national excess burden by about $200 billion. Many of the varied proposals recently under discussion to increase savings and investment by reducing taxes on this kind of saving or accelerating depreciation on that kind of investment would, at best, provide only minimal reductions in excess burdens; they could cause excess burdens to rise. Charles Becker and Don Fullerton studied a number of these proposals.[8] Among their conclusions is this statement:

> The plan most successful in terms of generating new savings and capital formation, is among the least sucessful in terms of (effi-

[6]Perhaps, we try to avoid the wage tax during our *working years* by producing more at home and less on the job—more home-cooked meals, more family entertainment and at-home education, less high-priced convenience foods, movies, and outside piano lessons. Avoid the tax man by avoiding the middle man. With many current demands being met at home, relatively more income is available to be saved. Present consumption expenditures fall relatively more than future expenditures.

[7]Don Fullerton, J. B. Shoven, and John Walley, "Dynamic General Equilibrium Impacts of Replacing the U.S. Income Tax with a Progressive Consumption Tax," National Bureau of Economic Research, Conference Paper No. 55, October 1980.

[8]Charles Becker and Don Fullerton, "Income Tax Incentives To Promote Saving," National Bureau of Economic Research, Working Paper No. 487.

> ciency) gains measures. The simulations serve to emphasize . . . that increased capital is only valuable if used properly.

Indeed, tax breaks for certain investments have become so great under the 1981 tax law that it may soon be profitable to buy a machine just for the tax credits it produces, even if it is left idle.

CONCLUSION

A tax system must consider equity if it is to succeed; one that values only efficiency is doomed to failure. But a tax system that ignores efficiency can be quite costly to society. The most popular objectives of tax reform—incentives for work, saving, and investment—often fail to hit the issue of efficiency head-on. At best, they are mere proxies for the true objectives of efficiency—reduction of excess burdens. At worst, they will lead to further inefficiencies.

Economic analysis and research leave many questions about efficient taxation unanswered. Most notable is the issue of whether to tax or subsidize saving, or just leave it alone. But there are some clear cut recommendations for designing a tax system that fall out.

First, very high personal tax rates are highly inefficient. And the top rates can be lowered substantially with no loss in revenue. Equity can be preserved by exempting low income entirely from the tax. A persuasive case can be made that neither fairness nor a requirement for revenue demands a top personal tax rate above 20 or 25 percent.

Second, while we may not know *whether* to tax saving and investment, we do have clear guidelines on *how* to tax them (if they are taxed at all). Here the rule is simple: close tax loopholes by taxing similar activities at similar rates. As a rule of thumb, all investment—whether in private homes, corporate factories, or business machines—should be taxed at the same rate. Otherwise, there will be switches from efficient to inefficient activities. Encouraging only some kinds of investments or saving may not increase them in the aggregate, and even if it does, it may do nothing to reduce the apparently very high excess burden in the U.S. tax system.

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BIG GOVERNMENT, a pamphlet written by Lawrence C. Murdoch, Jr., Vice President at the Philadelphia Fed, traces the growth of government in the United States and puts recent calls for reducing the size of government into perspective. Copies are available without charge from the Department of Public Services, Federal Reserve Bank of Philadelphia, 100 North Sixth Street, Philadelphia, PA 19106.

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