

How to Make the President's Good Tax Reform Plan Even Better

Henry J. Aaron

THE CURRENT income tax system suffers from three extremely serious problems:

- The tax base has been narrowed. As a result, the tax system needlessly distorts consumption, saving, investment, and production.
- Because the tax base has been narrowed, rates are higher than necessary to raise current revenues. These unnecessarily high rates aggravate economic distortions and inequities.
- The tax system raises too little revenue to pay for current government expenditures or for expenditures that will remain after Congress is done cutting all the spending programs it can.

The president's program deals in some measure with the first two problems, but it does nothing about the third.

Even if no changes in it were made, President Reagan's tax plan would represent, in my view, an advance over the current system. But restoration of some of the innovative and constructive proposals put forward by the Treasury Department last November (and eliminated by the White House) could greatly improve it.

The Tax Base and Rates

The U.S. economy is based on the principle that individuals and businesses are better qualified than government to decide how to produce income and how to spend it. This principle is not absolute, as the existence of large government expenditures and far-reaching regulations attests; few would leave policy on national defense, social security, or the national parks wholly to individual decisions.

On the revenue side, deference to the wisdom of the market implies that we should design our taxes to distort economic decisions as little as possible. Again, the principle is not absolute. For example, most of us are prepared to support tax rules that encourage charitable giving. But the presumption does mean that anyone who would use tax policy to skew the voluntary decisions of entrepreneurs, managers, and consumers should have to demonstrate that the purpose of a proposed tax incentive is important, that the incentive would advance that purpose better than alternative instruments would, and that the gain would be worth the increased complexity that a new provision would generate.

The job of trying to reform our tax system is so hard in part because that standard of persuasion has been flouted recklessly and often and in part because it is very hard to measure and to tax some kinds of economic income. Over the years, through both inadvertence and intention, various sources and uses of

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income have received favored tax treatment.

The current zoo of exclusions, deductions, credits, exemptions, and allowances is the result. Most of these tax provisions were designed to advance meritorious objectives. The problem is that they do so with gross inefficiency, scattering incentives helter-skelter in patterns often unrelated to their purposes. In addition, each new tinkering with the tax code adds to its complexity. The result is that ordinary taxpayers cannot understand the rules and suspect rightly that they are forced to pay more tax than they should to cover the loss of revenue from clever tax avoidance by those who can afford costly advice. And although the maximum personal tax rate has come down in recent years, the rate faced by the typical taxpayer has gone up, in large part because of the unplanned and uncoordinated use of the tax system to achieve nonrevenue objectives.

Measuring Business Income

Current law imposes ridiculously uneven taxes on business income. The Treasury Department, the Council of Economic Advisers, and numerous economists and business analysts have documented the large variation in effective tax rates.¹ Depending on the source of funds, the type of investment, the nature of ownership, and the industry in which the investment occurs, effective rates of tax for broad classes of investment can vary from positive rates of over 90 percent to negative rates (actual subsidies) of more than 20 percent.² In particular, business equipment is heavily favored over structures, and profits on nondepreciable capital are taxed most heavily of all. Such enormous variations in effective tax rates induce appalling economic inefficiency.³

These discrepancies flow from a number of sources. Among the most important are:

- the investment tax credit, which discriminates against investments in structures and inventories and in favor of investments in equipment;
- depreciation schedules that deviate from true economic depreciation by widely different amounts for various assets and that, since depreciation deductions are not in-

dexed, deviate by different amounts depending on the rate of inflation;

- interest deductions that are not indexed for inflation and, hence, lead to very different returns on equity investments depending on the degree to which they can be financed by debt;
- the failure of current law to index capital gains for inflation and to tax real gains in full.

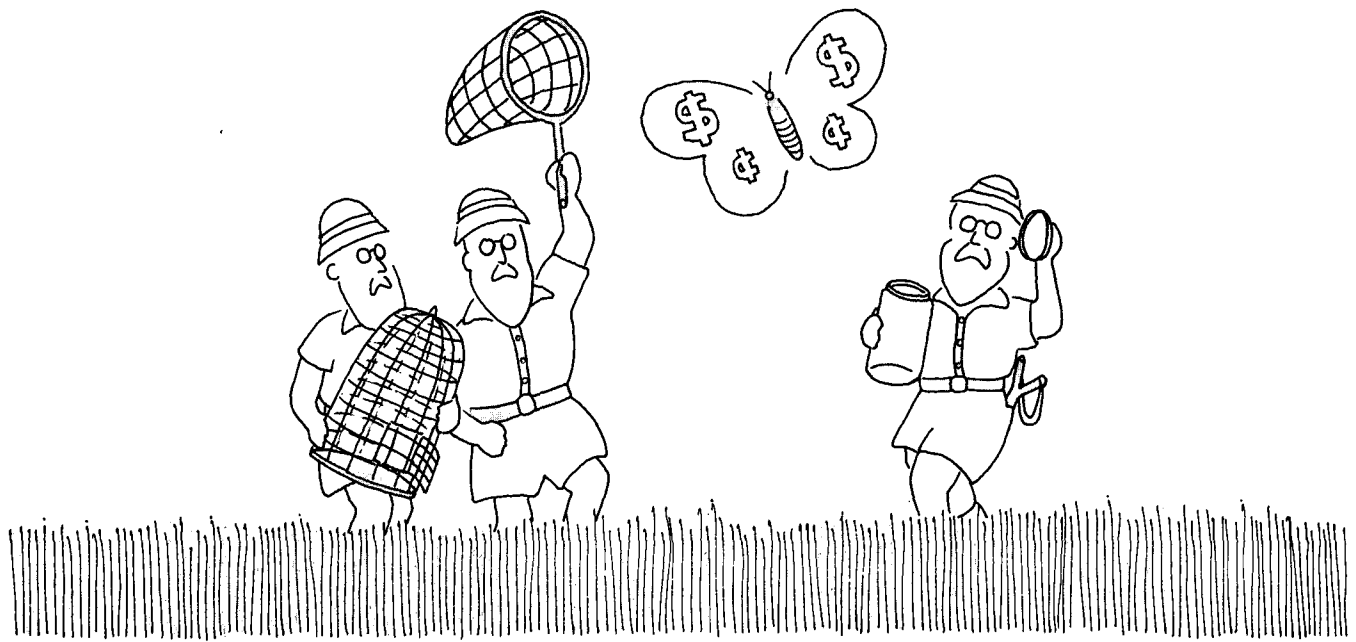
In short, the problems arise in large part from the failure to measure business income correctly.

The president's plan would reduce those discrepancies. The most important of the general provisions are: repeal of the investment tax credit; replacement of the ACRS depreciation system with indexed and somewhat accelerated depreciation rules; and the indexation of some capital gains.

These reforms do not go as far as provisions recommended last November by the Treasury Department in narrowing differences in effective rates on different kinds of investment.

- The depreciation schedules recommended in November came close to matching true economic depreciation indexed for inflation. The president's plan provides greater-than-true economic depreciation for structures, and the discrepancy is especially large for equipment.
- In November, Treasury proposed to index all capital gains for inflation and then to tax them like other realized income. The president's plan does not index most capital gains, and it would exclude 50 percent of long-term gains from tax; the exceptions are capital assets used in a trade or business, which would be indexed and real gains from the sale of which would be taxed in full.
- In November, the Treasury recommended a "rough justice" method of indexing interest income and expense for inflation. The president's plan skips this vital adjustment entirely. The Treasury proposals were flawed, but they could have been significantly improved with modest changes.

Are there good grounds for according more favorable tax treatment to equipment and other depreciable capital than



to other types of investment? Are special capital gains rules justified for nondepreciable capital and depreciable capital not used in a trade or business? The answer to both questions is: no.

Two principal arguments are advanced for taxing equipment at lower rates than those applied to other investments. First, it is alleged that investments in equipment add more to productivity than do other investments. Second, it is asserted that because the U.S. dollar is overvalued, American firms trading in international markets need help against foreign competitors.

The Productivity Argument for Favoring Investment in Equipment. The first argument — that investment in equipment increases productivity more than other investment does — makes no economic sense whatsoever. If productivity or profitability were higher on equipment than on other investment, the market would surely recognize that advantage. Why are subsidies needed? For any given national savings rate, output and growth are maximized when investment flows to where private rates of return undistorted by taxes are as high as possible.

To be sure, there are times when subsidies to *particular* industries are justified. When they are, we should not foul our tax system with poorly-targeted tax concessions to a broad category of investments. We should own up and provide a subsidy to the firm or activity we wish to assist.

When tax concessions push whole classes of investments with relatively low (and sometimes even negative) rates of return ahead of investments with high rates of return, output may even be reduced and welfare certainly will be. And this is just as true when the low productivity investment pushed to the head of the queue by tax advantages is called equipment. Though investment in structures and inventories may not tickle our technological fancies the way robotics and continuous casting do, they are better investments whenever they yield higher before-tax returns. By preventing the market from rendering its verdict, current tax breaks for equipment diminish the efficiency of our economy and the ability of U.S. firms to compete with foreign ones. These tax concessions are not pro-growth; they

are anti-growth.

Let me be clear. A strong case can be made for trying to increase saving by Americans. And a case can be made for a *uniform* incentive for all investments. But no respectable case can be made for systematically distorting the allocation of capital into low-productivity uses.

International Competition. Some people grant the general undesirability of using tax concessions to favor certain investments, but argue that they are justified at this particular time to help U.S. firms against foreign competition. In appraising this argument, one should keep in mind that all existing or proposed tax concessions for investment would apply equally to capital goods produced here and those produced abroad; discrimination based on place of manufacture would violate the General Agreement on Tariffs and Trade (GATT). Hence, tax concessions may increase total U.S. demand for equipment, but they in no way assure that the incremental demand will be for equipment *made in the United States*.

But what about users of capital goods? Wouldn't tax concessions for the purchase of equipment help them against foreign competitors? The answer is: not much. In 1983, of total value added in nonfinancial corporations in the United States, about 24 percent was attributable to capital. But only about 4 percent was net income attributable to equipment. Even if the effective tax rate on net income attributable to equipment were increased by 25 percent and all of the increase were shifted forward to purchasers in the form of higher prices, the effect would be only a 1 percent increase in prices. Since the value of the dollar often changes by 2 percent or more in one day and many experts estimate that the dollar is overvalued by 30 to 40 percent, it would be hard to detect any direct impact on international competitiveness of the increase that the president has requested in taxes on equipment.

It is not legitimate to argue that low tax rates serve to encourage investments that in turn reduce the prices of U.S. products by large amounts. Tax concessions may make the difference for marginal investments, but investments with high returns will be undertaken without added inducement.

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ment from the tax law. The reduction in production costs cannot be large; if it were, the project would pass muster without the tax inducement.

Those who claim that certain tax provisions must be retained to preserve America's international competitiveness should not go unchallenged. They should be asked to show in detail, not by glib generalities, how the U.S. position in world markets would be strengthened by the measures they espouse — how, for example, the advantages of a 20 percent lower tax rate on equipment, or even on both equipment and structures, could offset perceptibly the disadvantages of a grossly overvalued dollar. Should we not deal squarely with the problems of high real interest rates, overvaluation of the dollar, and enormous budget deficits instead of settling for placebos in the form of investment incentives that do nothing about the real issues and distort the economy at the same time?

Capital Gains. Congress can strengthen the president's plan by replacing his recommendations regarding the taxation of long-term capital gains and the measurement of depreciation with the Treasury Department's proposals on these points. Under the Treasury plan, tax would be levied only on real, inflation-adjusted gains. No tax would be imposed on illusory gains caused by inflation, as can occur under current law or under the president's proposal.⁴ The Treasury's proposed depreciation schedule would approximate true economic depreciation, thereby ending the distortion of investment decisions that is attributable to discriminatory rules.

Interest Indexing. Under current law, borrowers are allowed to deduct from ordinary income the inflation premiums in interest payments, and lenders are required to pay tax on these premiums. The premiums vary with the rate of inflation and can be large. Current tax treatment fosters tax shelters and distorts the allocation of investment. Indexing, which would prevent inflation premiums from affecting tax liabilities, is essential if these distortions are to be avoided.

The Treasury Department put forward an imaginative indexing proposal last November. It contained two major

flaws—one regarding the treatment of financial institutions and the other dealing with owner-occupied housing — but these could readily be corrected. The proposal would create difficult problems of transition, and it would necessitate some additional computations by taxpayers. However, the importance of removing inflation premiums from the tax system fully justifies incurring these inconveniences.

The gains to be derived from accurate measurement of capital income would be very substantial.⁵ Not only would this reform improve the allocation of capital and add to economic efficiency, but it would also reduce the need for business planners to take tax factors into account in planning investments. The significance of achieving this goal — pushing tax planning out of its currently preeminent place in the corporate boardroom — dwarfs that of adding or subtracting a few lines from the form 1040.

Measuring Personal Income

The president proposes to broaden the personal income tax base in a number of ways and to use the revenues from base-broadening to lower personal tax rates. In most respects, his plan is markedly more timid than the one advanced by the Treasury Department. Treasury proposed to raise \$19 billion in 1990 by taxing certain fringe benefits; the president would raise only \$4 billion. Treasury proposed to raise \$45 billion in 1990 by curbing itemized deductions; the president would raise \$40 billion.⁶

Fringe Benefits. The president's plan is too timid in its approach to fringe benefits. The exclusion of fringe benefits encourages employers to provide them even when workers would prefer consumption goods of equal economic cost that they must buy themselves. The reason, of course, is that consumption through fringe benefits is subsidized to the extent of forgone personal taxes.

At the same time, we all recognize that there is some value — to society as well as to the individuals involved — in assuring that people have basic health insurance or some life insurance, and we understand that people sometimes lack the foresight to provide these things for themselves.

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The question is how to continue encouraging the provision of basic levels of certain benefits, while discouraging the excesses traceable to the currently unlimited tax incentive.

The Treasury got matters about right last November when it recommended a ceiling on the exclusion from personal income tax of employer-financed health insurance and the full taxation of all other noncash fringe benefits. But this approach encountered strong opposition, especially from the chairman of the Senate Finance Committee.

As a compromise, Congress might extend to all noncash fringes the principle the Treasury Department would have applied only to health insurance. Each individual would report the dollar value of all currently excluded fringe benefits — employer-purchased health insurance, group term life insurance, cafeteria plans, and other smaller items — and would be required to include in income the amount by which the total value of these benefits exceeded a specified threshold.

This approach has some advantages over both the president's plan and the Treasury Department's November proposal. It would raise more revenue from the inclusion of fringe benefits than would the president's plan. Like the Treasury proposal, it would tend to increase sensitivity to medical costs by denying deductions for the last dollars spent on excessively generous health insurance plans. But unlike the Treasury plan, it would not extinguish the exclusion of any particular fringe benefit. Rather, it would retain tax incentives for the provision of specified types of fringe benefits, permitting employers and employees to choose among these options. It would simply put an end to the abuse of unlimited exclusion of fringe benefits.

State and Local Taxes. A good deal of controversy has centered on the recommendation by the president and the Treasury Department that deductions for state and local taxes be disallowed. A strong argument can be made that some of the costs of the services provided by a state or locality should be borne by people who live outside its borders. Many such services benefit people who live in other jurisdictions. For example, expenditures to educate children in Mississippi, New York, or Oregon clearly affect my

well-being as a resident of Washington, D.C. If I do not pick up part of the cost, it is quite possible that residents of those states, who derive only part of the benefits from their education expenditures, may spend too little. The same logic applies to many other state or local services, including police protection, health expenditures, and welfare outlays. We are simply too mobile and interconnected a society to treat each jurisdiction as a fiscal island.

The foregoing line of argument points toward a system of grants-in-aid from higher- to lower-level jurisdictions. It does not, however, point toward the particular pattern of implicit grants that the deductibility of state and local taxes has led to — a pattern in which the size of a jurisdiction's implicit grant depends on how many local residents itemize their deductions and on what their tax brackets are.

In a well-ordered world, grants-in-aid would reflect perfectly the benefits and costs of state and local services, and no deductions would be permitted for state and local taxes. In fact, our system of grants is far from ideal, and it is being scaled back in the face of budgetary exigencies. To jettison deductibility at such a time would place extraordinary burdens on states and localities. A persuasive case can be made for the elimination of deductibility, but only if it is linked to a reform and extension of grants-in-aid.

Since no reform or expansion of grants-in-aid programs seems likely in the near future, we are faced with three conflicting considerations. First, reductions in federal individual income tax rates cannot go very far without some curtailment of the deductibility of state and local taxes. Second, those taxes are a rather poor grant-in-aid program. But, third, the importance of deductibility to states and localities is growing as grants-in-aid are curbed.

These circumstances can be partially reconciled if state and local taxes remain deductible, but only to the extent that they exceed a stipulated fraction of adjusted gross income. If that fraction were set at 5 percent, the resulting increase in federal revenues would be about two-thirds of the increase that, according to Treasury Department estimates, would be realized if the deductibility of state and local taxes were eliminated altogether. Some citizens of all

Table 1.
Deductions for State and Local
Taxes as a Percent of Adjusted
Gross Income on Returns with
Itemized Deductions, 1982

Size of adjusted gross income	Number of returns with taxes paid deduction (millions)	Amount of deduction (as percent of adjusted gross income)
Under \$5,000	0.5	22.5
\$5,000, under \$10,000	1.6	11.9
\$10,000, under \$15,000	2.7	9.3
\$15,000, under \$20,000	3.2	8.3
\$20,000, under \$25,000	4.2	7.6
\$25,000, under \$30,000	4.7	7.5
\$30,000, under \$40,000	7.7	7.4
\$40,000, under \$50,000	4.2	7.3
\$50,000, under \$75,000	2.9	7.6
\$75,000, under \$100,000	0.7	8.0
\$100,000, under \$200,000	0.6	7.5
\$200,000, under \$500,000	0.1	7.0
\$500,000, under \$1,000,000	0.02	6.8
\$1,000,000 or more	0.008	6.7

Source: Internal Revenue Service, *Statistics of Income-1982, Individual Income Tax Returns*, U.S. Government Printing Office, 1984, Table 2-1, p. 60. Percentage is based on amount of taxes paid deduction per return with taxes paid deduction, divided by adjusted gross income of all returns with itemized deductions per return with itemized deductions.

states would continue to be able to deduct a portion of their state and local taxes, although clearly the fraction would be larger in jurisdictions with relatively high taxes. Table 1 shows the average ratio of deductions for state and local taxes to income by income class in 1982.

Low-Income Relief

The president proposes to increase personal exemptions to \$2,000 for each person, nearly double the current level. He also calls for increases in the zero-bracket amount — to \$4,000 for joint filers, a 9 percent increase; to \$2,900 for single filers, a 17 percent increase; and to \$3,600 for heads of households, a 45 percent increase.

Measures to raise the “tax entry point,” the income level below which no income tax is imposed, are long overdue; no adjustments were made from 1979 through 1984, despite inflation of more than 40 percent. However, the combination proposed — a relatively large increase in personal exemptions and smaller increases in the zero-bracket amounts — is a particularly costly way of boosting tax-free income levels.

The same tax entry points could be preserved for a family of four if the personal exemption were raised \$100 less and the zero-bracket amount were increased \$400 more. But revenues would be higher. The increase in the zero-bracket amount would help only those who do not itemize their deductions, but the personal exemption is available to everyone. Tax entry points would remain the same for a four-person family as under the president’s plan and the revenue gain would be even larger if the personal exemption were set at \$1,700 (instead of \$2,000) and the zero-bracket amount were set at \$5,200 (instead of \$4,000). By way of comparison, the Bradley-Gephardt plan would increase the personal exemption for joint filers to \$1,500 each (\$1,000 for additional dependents), but would raise the zero-bracket amount to \$6,000 for joint filers. Revenues would be

roughly \$5 billion higher than under the president’s plan with the \$1,700 exemption and the \$5,200 zero-bracket amount and \$8 billion higher than under that plan with a \$1,500 exemption and a \$6,000 zero-bracket amount. Since some of the changes that Congress may make in the president’s plan would reduce revenue, it may find attractive the prospect of increasing revenue by making a larger increase in the zero-bracket amount and a smaller increase in the personal exemption than the president proposes.

Revenue Neutrality

To an economist interested in restoring balance to federal finances, the most disturbing aspect of the president’s tax plan is the threat that it will turn into a tax cut. This concern arises both from the design of the plan and from the way the president is presenting it to the American public.

The president has said that taxes should be increased only as a last resort after spending has been reduced as much as possible. He has also said that tax reform will make it harder to raise rates in the future. For quite different reasons, both Republicans and Democrats have agreed to devote this year to trying to cut spending and reform the tax system — and to leave tax increases for a later date.

But this year’s struggles over spending make it clear that the budget cannot be balanced by spending cuts, unless Congress is prepared to jettison social insurance or to enact security-threatening cuts in defense outlays. The budget deficit can be closed only if the United States is prepared to raise taxes and to raise them significantly.

The president’s plan is unlikely to yield as much revenue as he has estimated. Consider these points:

- The president calls for the repeal of income averaging. If Congress rejects, as it should and probably will, this retrograde proposal, the president’s plan will generate \$4 to \$5 billion less per year than is now projected.
- The president’s proposal to recapture the rate differen-

tial on accelerated depreciation is an inherently sound idea. However, even if Congress agrees to the change, it is likely to produce less revenue than he anticipates. Some firms are likely to be able to demonstrate hardship and win relief. In addition, there is as much logic in applying the same principle in areas (loss carryforwards, for example) that would reduce revenues as there is in applying it to depreciation.

- Corporate rate reductions are deferred until July 1, 1986, while the introduction of the new depreciation schedules (which result in some short-run increase in revenues) and the repeal of the investment tax credit would take effect on January 1, 1986. The personal rate reductions are also deferred until July 1, although nearly all other personal tax provisions would take effect on January 1. These asymmetries in effective dates have no rationale in tax policy and seem to be motivated only by a desire to forestall estimates of large revenue losses in 1986.

If there is one thing the United States economy does not need — and, in fact, cannot stand — it is yet another tax cut that would make the deficit still worse, the dollar still stronger, and the international competitiveness of U.S. industries still weaker. Under no circumstances should Congress approve any tax bill, however meritorious on other grounds, that does not at least maintain revenues.

Such a move would further reduce the U.S. national savings rate, which is already at a postwar low because government deficits are absorbing about two-thirds of net private saving. We should not be beguiled by current investment rates into thinking that Americans are investing a sufficient amount. The high U.S. dollar has put foreign goods on sale; Americans are buying, and to pay for this buying binge they have liquidated all their foreign net assets and are going into debt at a rate unprecedented in international financial history. Foreigners' investments are skyrocketing, and returns from these investments will flow abroad. The most direct and effective way to restore U.S. saving and simultaneously to promote investment here is to bring down the deficit.

For this reason, it is vital that the American people be told that tax reform and simplification will facilitate and make less burdensome the increase in tax rates necessary to help balance the budget. Raising tax rates on a base as distorted and unfair as the current one would aggravate tax-generated inequities and inefficiencies. These costs would be much reduced if the tax system were significantly improved. The president does a disservice to the causes of fiscal responsibility, high saving, and a strong U.S. economy when he suggests that his proposal is another installment in an agenda for cutting taxes.

Summary

The president has sent to Congress a tax reform plan that has important positive elements. Most notably, it reduces marginal tax rates on both individuals and businesses, and it moves toward equal taxation of business income regardless of source. But there is room for improvement, much of it along the lines charted by the Treasury Department last November and in plans previously developed by members of Congress. The most important refinement would be to move further toward equal taxation of capital

income, including complete indexation of capital gains, full taxation of real capital gains, and the adoption of depreciation schedules, indexed for inflation, that reflect the true loss of economic asset values. In addition, fuller taxation of fringe benefits would remove distorting incentives in employee compensation. Finally, tax reform must be understood not only as a means to reduce statutory rates and make life simpler for taxpayers, but as a step toward restoring fiscal balance in federal affairs.

1. *Annual Report of the Council of Economic Advisers*, 1982, pp. 122-124; *The President's Tax Proposals to the Congress for Fairness, Simplicity, and Growth*; Office of the Secretary, Department of the Treasury, *Tax Reform For Fairness, Simplicity, and Growth*, vol. 1, *Overview*, November, 1984; Mervyn A. King and Don Fullerton, *The Taxation of Income from Capital: A Comparative Study of the United States, the United Kingdom, Sweden, and West Germany* (University of Chicago Press, 1984).

2. King and Fullerton, p. 244.

3. "Suppose that type A investments are taxed at 80 percent (that is, 80 percent of their yield is paid in taxes), type B investments are taxed at 40 percent, and type C investments are free of tax. If the investment risks of each are the same, investors will put their money where they earn the most after taxes. If type C investments yield 6 percent before and after tax (that is, they pay the investor 6 cents per year for every dollar invested), how much will the other two investments have to yield in order to attract investors? The answer is that type B investments will have to earn 10 percent before tax (paying a tax of 40 percent on a return of 10 percent leaves a 6 percent after-tax yield), and type A investments will have to earn 30 percent. That means that a type A investment that yields, say, 29 percent before tax will lose out to a type C investment that yields only 6 percent. When tax rules cause investors to select projects yielding 6 cents per dollar invested in place of others yielding 29 cents, the economy as a whole sacrifices 23 cents (nearly four-fifths) of the potential return. Not all misallocations attributable to the tax system are so extreme. But some are worse." Henry J. Aaron and Harvey Galper, *Assessing Tax Reform* (Brookings, 1985), p. 3.

4. After 1990 the president's plan would permit taxpayers to choose between paying tax on 50 percent of nominal gains or all of inflation-adjusted gains. This option is worse tax policy than either alternative taken alone, as it would permit taxpayers to manipulate sales of capital assets, selling in one year those on which one approach is more favorable and selling in the next year those assets on which the other approach is more favorable. The result would be an even larger discrepancy between the tax rate on capital gains and that on other income. For an eloquent and correct argument as to why concessionary rates on capital gains are not necessary to elicit venture capital, see Office of the Secretary, Department of the Treasury, *Tax Reform for Fairness, Simplicity, and Growth*, vol. 1, *Overview*, November, 1984, pp. 180-181.

5. One of these gains is that accurate measurement facilitates changes in tax rates. For example, the president's plan contains a provision to recapture some of the depreciation deductions allowed in the past several years. This provision has some justification because it hardly seems fair to permit investors to take deductions against one tax rate and pay tax on subsequent income at another rate. But this problem would not arise if depreciation deductions matched true economic depreciation. In that event, there would be no need to recapture anything, because the deductions claimed would exactly match the expenses incurred.

6. In one respect, the president's plan is sterner than the Treasury plan. Treasury would have phased in over two years the denial of deductions for state and local taxes; the president makes the denial fully effective in January, 1986.

Secretary Dole and the Future of Automobile Airbags

John D. Graham

REGULATION to protect the health of consumers, workers, and the public has posed a delicate problem for the Reagan administration. The staunch advocates of deregulation want to halt the flow of new rules and scale back regulatory programs that are already in place. They are seeking to remove restrictions on industry that impose burdensome costs, impair productivity, and harm the competitive position of domestic firms. However, more moderate members of the administration are nervous about this strategy, arguing that there are significant political risks in the vigorous pursuit of deregulation in health and safety programs.

That inherent tension in regulatory policy has been quite evident in the administration's approach to automobile safety — and was recently contended with by Elizabeth Dole, secretary of the U.S. Department of Transportation (DOT), in her decision about the future of automobile airbags and seatbelt systems. She has called this "the toughest public issue I have faced." This article describes how the Reagan administration became embroiled in the airbag controversy and what Dole has proposed to do about it. The essay examines the options that Dole had and the strengths and vulnerabilities of her final policy determination.

The Problem

Each year, several million American drivers and passengers sustain, in motor vehicle crashes, injuries that require treatment at hospital emergency rooms. Between 40 and 50 thousand of them die from crash injuries, and a comparable number suffer crippling conditions, such as paraplegia, quadriplegia, brain damage, and epilepsy. The costs of these injuries, measured in terms of medical expenses and forgone earnings, approach \$40 billion per year. The human harm is especially tragic because — unlike cancer and heart disease, which normally strike in later years of life — crash injuries strike disproportionately at the young; in fact, they are the leading cause of death among Americans under the age of 40.

Engineers in industry and government have developed three technologies that have proven able to mitigate the severity of crash injuries. Manual lap and shoulder belts, if worn, can prevent about 40 percent of fatal injuries and 50 percent of moderate to critical injuries. Automatic belts, which fasten around the occupants of a car when the car door is closed, are slightly less effective than manual belts. Air cushion (airbag) systems, which operate electronically or mechanically during a crash, are designed to deploy only in front and front-angle crashes. They reduce the overall risk of fatality by about 30 percent and the risk of moderate to critical injury by 35 percent. When airbags and lap and shoulder belts are combined, they reduce fatality risk by 50 percent and injury risk by 55 percent. Although there is some uncertainty and controversy regarding these estimates, the

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