

Reforming Income and Payroll Taxes

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Introduction

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This monograph is the third in a new series of tax policy studies sponsored by the Progressive Foundation Project on Tax Reform and the Progressive Policy Institute. This project's mission is to identify and design a growth-oriented tax reform program that can -- consistent with a progressive tax system -- help promote higher national savings and investment, stronger job and business formation, and higher economic productivity and growth. The essays in this series include analyses of alternative reforms for the corporate, personal, and payroll taxes; comparisons of tax burdens imposed on workers and firms by the United States and other major industrial nations; and new examinations of pollution taxes and value-added taxes. This volume examines various approaches for reforming individual income and payroll taxes in essays by Jonathan Gruber, "Payroll Taxation in the United States: Assessing the Alternatives," and Joel Slemrod, "Tax Policy in the Second Clinton Administration: A Fantasy."

This interest in reforming the tax code is part of a commitment by the Progressive Foundation and the Progressive Policy Institute to help develop a new Enterprise Economics that places the valid insights of both traditional liberal and conservative economics in the new global economic context. This approach seeks to focus policy not simply on financial capital or aggregate demand, but on the resources for greater innovation and higher efficiency and productivity by American firms and workers. In addition to tax reform, the policy agenda of Enterprise Economics includes budget reform to restrain the growth of public spending while revitalizing genuine public investment, and strategies to strengthen market competition by phasing-out subsidies for particular industries and unproductive economic regulation. Through far-reaching reforms in labor-market policies, education, and training, Enterprise Economics also seeks to endow America's workers with the skills and opportunities they need to create their own economic security in an era of dynamic global competition.

For most Americans, paying taxes -- particularly income and payroll taxes -- is their chief point of direct contact with the national government. These taxes are also the government's chief point of contact with most Americans. Individual income taxes and payroll taxes account for 83 percent of all federal revenues and 63 percent of all tax revenues raised by governments at all levels in the United States. Further, these two taxes account for 72 percent of all taxes paid directly by individuals and claim nearly 20 percent of the nation's Gross Domestic Product (GDP) (Quick, Neubig 1994).

The ways that government extracts such sizable sums from so many Americans carry significance beyond the revenues raised. First, taxes on individuals almost inevitably embody a public sense of fairness -- a social policy -- through their overall level and pattern of distribution. Ideally, most taxpayers should feel that their tax burden is not greater than it ought to be, both in absolute terms and relative to other taxpayers. The U.S. tax system meets this fairness test through the generally progressive tax rate structure of the personal income tax: People with higher incomes pay not only more than others but also a larger share of their incomes than others. In contrast, the payroll tax system uses a regressive tax rate structure. In particular, the social security payroll tax falls on only the first \$60,600 of wages and salaries (adjusted annually to account for inflation). This regressive effect is offset by providing more generous retirement benefits for lower wage workers than for higher paid people, at least relative to the payroll taxes they have paid into the system.

Direct federal taxes on individuals embody economic as well as social policies. No tax can avoid affecting the decisions that determine how economic resources are allocated, because inevitably some types of economic resources will be taxed differently than others. By promoting or discouraging certain economic behavior, any system of taxes on individuals will to some degree advance certain economic outcomes. For example, the present American income tax system tends to encourage consumption at the expense of savings. Also, current payroll tax arrangements tend to discourage job formation and work effort, especially by secondary workers. A society's and

government's decisions about what activities, sources, or forms of income should be taxed will therefore illustrate a distinct view of the economy and of government's proper role in it.

At least three distinct approaches to the economy have been implicit in tax policy proposals advanced in the United States over the last generation.

One prominent strategy, represented in many of the 1986 tax reforms and in recent so-called "flat tax" proposals, seeks to ensure that taxes are as economically "neutral" as possible, so as to affect as little as possible judgments by firms and individuals about what to buy or sell. This approach relies on the view that without government prodding or interference, markets will produce the most efficient and wealth-generating economic behavior possible, and consequently should be insulated from the demands of government's non-economic goals. This view makes no particular claim about the optimal size of government or of the tax burden to finance it. Rather, it simply insists that revenues be raised from the broadest possible tax base -- with the fewest special exemptions, deductions and credits -- and therefore with the lowest rate consistent with the revenue target.

A second strategy -- represented by many of the 1981 tax reforms as well as by such perennial favorites as preferential tax treatment for capital gains, mortgage interest, child care, and educational expenses -- seeks to "target" the incentive of lower taxes to actively favor certain strictly-defined economic decisions or activities. This approach relies on the view that the economy is riven with degenerative market failures that reduce its natural efficiency and wealth-producing capacity, and consequently markets require government intervention to achieve their potential. The problem with this approach is its record: Targeted tax incentives have failed to affect individuals or firms in ways that increase the nation's long-term output, investment, productivity, or incomes.

Midway between these two approaches to tax reform is a third -- represented by current proposals for a consumption-based income tax and business transfer or cashflow tax -- which seeks to systematically exclude from tax a few general classes of economic activity. Without drawing any conclusions about an economy's inherent market failures, this approach surveys the economy's behavior and identifies a few basic factors which, according to economic reasoning, might enhance the economy's performance if they were in greater supply. This view, like the others, entails no particular claim about the optimal size of government, but seeks to exclude from government financing the resources dedicated (through broad exemptions) to these few general activities.

These various tax-policy strategies imply different approaches to the tax base and the pattern of tax rates applied to it. If "neutrality" is deemed important, the tax base will be more broad and the tax rate can be lower. When policymakers with less confidence in markets provide numerous tax incentives for particular instances of economic behavior, the tax base will contract in a non-uniform way and the structure of tax rates will become more complex. If a few economic factors associated with a specific long-term goal receive high priority, the tax base can be relatively uniform with a few broad exclusions, and the tax-rate structure can be relatively simple.

A tax system's economic objectives, however, commonly conflicts with traditional social-policy goals. For example, efforts to promote free-market efficiency typically involve fewer and lower tax rates, as efforts to enhance long-term growth often involve large income-tax incentives for savings or investment, or payroll-tax exemptions for high salaries and capital income. Either approach tends to reduce overall progressivity by shifting the tax burden away from more affluent people. Likewise, reforms to increase progressivity by reducing the tax burden on lower or moderate-income people usually involve a greater burden on more affluent taxpayers, who as a class save and invest more and perform higher value-added labor. A reduction in payroll taxes on firms creating entry-level jobs may create pressures for a higher payroll tax on better-paid workers, who are more likely to work a little less in response to higher tax rates.

Personal income and payroll taxes are so large -- as a proportion of the economy, of all government revenues, and of most people's incomes -- that conflicts between economic and social-policy goals raised by a new tax proposal will be closely scrutinized and hotly disputed. The two essays in this volume examine various tradeoffs between social equity and economic efficiency in a series of possible revisions of the personal income and payroll tax systems.

Executive Summaries

In "Payroll Taxation in the United States: Assessing the Alternatives," Professor Jonathan Gruber of the Massachusetts Institute of Technology analyzes a number of serious economic and social issues raised by the current U.S. payroll tax system. The system's social benefits are significant: Since 1960, Social Security has reduced the share of elderly Americans that live in poverty from 40 percent to less than 15 percent, and living standards for disabled Americans have risen sharply. This social progress, however, has been achieved at high cost. To begin, public provision for retirement and disability inevitably reduce people's incentives to save for themselves, eroding the national savings rate. Moreover, since current benefits are financed from current taxes, not past contributions, the

system contributes nothing to genuine savings; it directly transfers income from those working to those retired. Payroll taxes also raise U.S. labor costs, reducing both employment and the international competitiveness of American-made products and services. Finally, the distribution of the payroll-tax burden is overtly regressive: Annual labor income exceeding \$60,600 and all income from capital assets is payroll-tax free.

None of these problems, Gruber explains, can be solved easily. The necessity of some public provision for retirement and disability arises from the basic economic conundrum of "adverse selection." Since individuals know more about their own health and life-expectancy prospects than do insurers, people will make private provision for their own retirement and disability only if the benefits they expect are greater than the costs. Only those with reason to fear disability or reason to expect to live a long time will purchase private coverage -- and even some of them will not bother. If most people behave this way -- and many seem to -- unfettered insurance and annuity markets will fail, and no one will be able to buy insurance or annuities.

The solution to this conundrum is mandated coverage, which creates new problems. First, there is the classic "samaritan's dilemma": When government lends a hand, people tend to personally undersave and underinsure. Careful analysis suggests, for example, that every dollar provided in public retirement benefits reduces private retirement savings by 25 to 40 cents. In some cases these programs also create a classic "moral hazard" when some people's responses to being insured raise the cost of providing it. For instance, persons with health insurance tend to demand excessive medical care.¹ Finally, by financing mandated coverage with a payroll tax, the system reduces employment insofar as business bears the tax, and may reduce work effort insofar as employees bear the burden.

Some reformers' answer to the last problem is to expand the payroll tax base from wages and salaries to all resources covered by the income tax, including capital income, so the tax rate might come down. These solutions would make the system more progressive, but at considerable cost. To begin, the current income tax has so many exemptions, deductions and credits that this change wouldn't expand the payroll tax base at all. Further, since people can shelter regular income through exclusions much more easily than wage income, the change would probably require a higher tax rate to preserve current revenues, increasing the system's costs to the economy. Removing the current \$60,600 cap on labor income subject to the Social Security payroll tax would expand that base, but by less than might be expected since many highly-paid people can shift some income to non-taxable forms such as fringe benefits or stock options, which in turn also would reduce the income tax base, and at greater cost.

A more radical and promising alternative for the payroll tax system is a form of privatization through mandatory private savings. National savings would rise. The disemployment effect would disappear. And so long as people feel confident of receiving the full benefits of their forced savings, the system should not discourage work effort. But these economic gains also would entail social costs, since this approach would mean the end of the current progressive structure of retirement benefits. Moreover, getting from here to there would double the effective tax burden on many current workers, who would have to both save for themselves and continue to fund benefits for current retirees.

Until these problems can be solved, Gruber recommends more incremental reforms. First, provide people with annual notices of the benefits their payroll taxes earn each year, in order to reduce work disincentives. Second, move to a family-based payroll tax system so that benefits are based on a pool of both spouses' taxes. This would end the current unequal social-security treatment of secondary workers -- usually wives -- who receive no additional retirement benefits if their payroll tax earnings are less than half their spouses'.

Incremental reform is also an approach favored for the income tax by Professor Joel Slemrod of the University of Michigan in the second essay in this volume, "Tax Policy in the Second Clinton Administration: A Fantasy." Slemrod imagines a future a few years off when the president establishes two task forces to examine alternatives for simplifying and streamlining the current system.

The first problem for tax policy that Slemrod examines is substandard national savings and investment, analyzing proposals to exempt savings or investment from tax by replacing the current income tax with some form of value-added or other consumption-based levy. The potential economic benefits are large and obvious. The cost of capital for investment would fall and/or the return to savings would rise. Inadvertent incentives for favoring one form of savings or investment over others would end. And eliminating from the tax base capital income, which often is hard to measure or value correctly, should sharply reduce the substantial costs of administering and complying with income taxes.

As Slemrod demonstrates, the potential problems are equally large. In order to raise the same revenues as the current personal and corporate income taxes, a new consumption tax would need a 25 percent rate -- high enough to spur substantial tax avoidance since automatic withholding could not be applied easily. In addition, the exemption for savings and investment would reduce progressivity substantially. This could be offset by also exempting certain

necessities of life, such as food and shelter, but that would sharply reduce any administrative savings and require a still higher tax rate. In any event, Slemrod's task force also faces the real prospect that overall national savings and investment might not respond very much to any tax reform.

Smaller ambitions, in Slemrod's view, would produce more certain benefits. First, further simplify the current system on the pattern of 1986 tax reform: Two tax rates of 14 percent and 35 percent, financed by eliminating current deductions for state and local taxes, appreciated property and IRA contributions, and by curtailing the tax-free treatment of fringe benefits. These changes also should generate sufficient resources to index capital gains, repeal the phase-out of basic exemptions and deductions, provide a tax credit for business expenditures on workers' training and education, and eliminate the complex and often inequitable corporate alternative minimum tax and uniform capitalization rules.

Slemrod also urges that the Internal Revenue Service (IRS) take its place in the new information economy. Riding the information superhighway, the IRS could collect and organize virtually all income data from employers and payers of interest and dividends, electronically pre-prepare the tax returns of most people and inform them of the tax or refund due. For their part, taxpayers would only have to sign off or make appropriate corrections, savings tens of billions of dollars a year in administrative and compliance costs. And to protect the simplification gains of all of the reforms, new tax initiatives should include a "simplification impact statement" quantifying the incremental costs of administering and complying with any proposed tax change.

In this volume, Jonathan Gruber and Joel Slemrod analyze ably and lucidly both the profound economic flaws in America's major revenue systems and the equally profound difficulties in fixing them. Their contributions to this project should serve as a spur to creativity, as well as a warning to impatient reformers.

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Endnote

(1) In another example, people who work past age 65 do not receive commensurate additional social security benefit, inducing people to retire earlier than they otherwise would, which in turn contracts the program's tax base and reduces the economy's potential productivity.

References

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PAYROLL TAXATION IN THE UNITED STATES: Assessing the Alternatives

Jonathan Gruber

Preface

Payroll taxation is a large and growing source of public finance in the United States. In 1993, 38 percent of federal revenues were raised by payroll taxation; in 1960, this figure was only 12.4 percent (EOP 1992). This growing reliance on payroll taxation parallels a similar growth in other developed countries. For example, the payroll tax rate in Sweden grew from 6 percent in 1950 to 40 percent by the late 1970s (Holmlund 1983).

Three major federal programs are financed by payroll taxes:

- Social Security: provides income benefits to retired workers from age 62 onwards;
- Disability Insurance: provides income benefits to workers of any age who are permanently disabled and must leave the labor force; and
- The hospital portion of Medicare: provides health insurance for hospital expenditures to those over age 65.¹

These programs are financed by equal taxes of 7.65 percent on workers and firms. The sum of the employer and employee portions represents the majority of taxes paid for over 80 percent of taxpayers.

The growth in payroll-tax-financed social insurance programs in the United States has been criticized for a number of reasons. The insurance provided by these programs is necessarily accompanied by adverse incentives for individual work effort or savings behavior. For example, if the government is saving for older individuals, there is less need for them to save for themselves. Since the Social Security system doesn't represent true savings, but simply a transfer from the current young to the current old, the result is a drop in national savings. Furthermore, the financing of these programs is attacked as both inefficient, in that it raises labor costs, thereby reducing U.S. competitiveness and employment, and inequitable, in that taxing only wages places a larger relative burden on lower income families.

There also have been important gains from the provision of social insurance. For example, the proportion of elderly living in poverty has fallen from 40 percent in 1960 to under 15 percent in 1990 (Cutler and Katz 1991); this improvement in their standard of living is largely attributed to Social Security. Similarly, Bound (1989) documents substantial improvements in the standard of living for people with disabilities since the expansion of Disability Insurance in the 1960s. These welfare gains ensure that social insurance programs such as Social Security and disability insurance are here to stay. Nevertheless, there remains the potential for reforms to increase the efficiency and equity of the programs while preserving their achievements.

This paper addresses one particular area for reform -- the structure of the payroll taxes that finance these programs. Although the reasons why the government would want to intervene in private markets for the provision of health insurance or savings for the elderly are discussed here, the paper only focuses on changes related to the financing of Social Security, disability insurance, and Medicare. There are a number of interesting related questions about the benefits structure of these programs, but these are beyond the scope of the current effort.

In assessing alternatives for financing reform, it is important to understand both the reasons for having compulsory social insurance and the nature of the distortions that result. Thus, this paper opens with a brief overview of the financing and benefits structure of Social Security, Disability Insurance, and Medicare, and reviews accumulated evidence on the economic effects of these programs. The rationale for government intervention in such individual decisions as how much should be saved for retirement and whether the elderly should buy health insurance is discussed. This is followed by a short review of the vast literature on the effects of the benefit side of these programs on individual behavior.

The paper then turns to the financing side of these programs. First, the efficiency and equity of payroll taxation as a source of revenue finance is discussed within the context of a simple graphical model of the labor market. Then, directions for financing reform are described. Two of these would represent major systemic changes:

- Shifting from payroll tax finance to general revenue (income tax) finance and
- Shifting from payroll-tax-financed public programs to mandatory private programs (privatization).

The third possibility described here is to retain the basic structure of payroll tax finance, but to introduce two important, incremental reforms - measures to increase people's information about their future benefits and to shift the basis of payroll taxation from individuals to families. The paper concludes with a summary of the key principles to be considered in analyzing alternatives for payroll tax reform.

There are few obvious directions for payroll tax reform. The two major alternatives face important economic and political barriers. Switching from payroll taxation to income taxation raises the equity with which revenues are raised, in that higher income persons would face a larger tax burden. But at the same time, switching to income taxation would lead to a large drop in output per dollar of revenue raised, or a larger efficiency cost of raising funds. Privatizing social insurance programs induces exactly the opposite set of problems, raising efficiency but lowering equity. And both are likely to be politically difficult in the short run. On the other hand, there are more minor adjustments to the nature of payroll taxation that could be made which would increase both efficiency -- by tightening the links between

the taxes that individuals pay and the benefits that they receive -- and equity -- by removing needless intragenerational transfers.

Payroll-Tax-Financed Programs: Background²

Concern about social insurance programs stems from both the nature of the disincentives inherent in these programs and their rapid growth in the post-war period. To understand this concern -- and to determine whether it is justified -- it is necessary to examine both the detailed functioning of these programs and their growth over time.

SOCIAL SECURITY

Social Security is a public pension plan that provides benefits to workers upon their retirement (at age 62 or older). The program is "unfunded;" that is, the benefits paid to current retirees are financed by taxation of current workers. This contrasts to most private "funded" pension plans, whereby the benefits paid to a retired worker are financed by collections from that worker and his or her employer during his or her working life.

Social Security benefit levels are a function of a worker's earnings history. Individuals must have worked one quarter for each year after age 21, at a minimum wage of \$590 per quarter, to qualify for the program. If the wages during the quarter are lower, more quarters are needed for qualification. (The rules differ slightly for older cohorts.) Benefit payments upon retirement are based on the average earnings of the individual from age 21 to age 60, deflated for economy-wide wage growth.³ The highest 35 of these 40 years are used, and additional high-earning years after age 60 (in nominal dollars) can be used to replace lower earning years in that average. Earnings histories are then translated to benefits through a formula that, in effect, favors low-wage workers. Benefits are paid as an annuity, yielding a fixed amount (in real terms) from the point of retirement until death.

The normal age of retirement under Social Security is 65. Individuals can retire as early as age 62, but benefits are then adjusted downwards to reflect the fact that they are received for a larger number of years. Similarly, individuals can retire after age 65, and benefits are adjusted upwards, through a delayed retirement credit. If individuals wish both to continue working and receive benefits, they can do so; but above some minimum threshold (\$10,560), benefits are taxed away at a rate of \$1 of benefit for every \$3 of earnings: this is known as the earnings test.⁴

Benefits to retirees are financed by payroll taxation on workers and firms. Wages, salaries, and self-employment income are taxable; other forms of capital income, such as dividends, are not. Both sides of the payroll tax are capped at the Social Security Taxable Maximum earnings, so that the average tax burden is actually decreasing with wages above this earning level.⁵ In recent years, payroll tax collections have greatly exceeded benefit expenditures, with the difference being used to create a trust fund for financing the retirement of the baby boomers. This trust fund is projected to be insufficient to meet the needs of future cohorts, however, leading to recent proposals to slow the growth of Social Security benefits and/or raise tax rates.⁶ This situation highlights the importance of reconsidering the fundamental structure of social insurance financing.

The Social Security tax rate and taxable maximum have risen dramatically over the past four decades, particularly between 1950 and 1980 (see Table 1). In addition, the proportion of workers whose earnings fall below the taxable maximum rose sharply from 1950 to 1980, but has remained relatively constant in recent years, following rather large increases in the 1970s.

Total Social Security benefit payments have also grown very sharply over time (see Table 2). Benefits went up tenfold from 1950 to 1960, tripled in both the 1960-70 and 1970-80 periods, and doubled during the 1980s. This program growth was a function of both a growing economy, with rapidly rising incomes, and a rapid increase in program generosity; for example, Social Security benefits were indexed for inflation from 1972 onwards.⁷

DISABILITY INSURANCE

Disability insurance provides income benefits to workers whose disabilities are so severe that they must leave the labor force. Disability insurance structure and financing are very similar to Social Security's in several respects: individuals must have worked a minimum number of quarters (this minimum varies by the age at which the worker becomes disabled), and benefits are based on past earning histories. Unlike Social Security, however, there is no age restriction on the receipt of benefits. Instead, the program's major restriction is that individuals be physically or mentally incapable of gainful employment. Disability is assessed through a complicated process which begins with state examination boards, and which can ultimately be appealed at the federal level.⁸

The disability insurance tax rate is quite small relative to that of Social Security (see Table 1). The taxable maximum, however, is identical for the two programs. Until 1970, the disability insurance program was quite small, but enrollment exploded during the next ten years (see Table 2). This rapid growth is thought to have reflected the high benefits available to older workers under disability insurance, and the imperfect ability of the program to restrict benefits to those with true disabilities the evidence on this point is discussed below. Growth then slowed during the 1980s, as a number of policy changes made it more difficult to qualify for disability insurance. But expenditure growth has picked up in recent years -- partly because the courts have overturned the restrictive policies of the early 1980s -- and the disability insurance program faces an imminent funding crisis unless further adjustments are made.

MEDICARE

Medicare is public health insurance for all persons age 65 and above. Medicare consists of two parts. Part A finances the hospital expenditures of the elderly, and requires some copayment by the individuals covered. This part of Medicare is financed by a payroll tax similar to that of Social Security, which is levied equally on workers and firms. The Medicare payroll tax differs in two important respects from the Social Security payroll tax, however. First, it is much lower (see Table 1). Second, in recent years, the taxable maximum has greatly exceeded that for Social Security; this cap was removed altogether in tax year 1994. The second part of Medicare, Part B, finances the physician expenditures of the elderly. This portion of Medicare is financed through premium payments by the elderly and general revenues.

Much like Social Security and Disability Insurance, Medicare has grown rapidly since its introduction in the mid-1960s (see Table 2). Unlike the other programs, however, this growth continued steadily in the 1980s. This growth reflects not only the aging of the U.S. population but also the rapid rise in health care costs for all payers.

Why Have Social Insurance?

Before the structural issues surrounding the Social Security, disability income, and Medicare programs can be considered, it is important to assess whether these programs even should exist at all. This section covers the traditional arguments for government intervention in private decisionmaking over such matters as savings for retirement and private insurance purchases for the medical needs of the elderly.

The starting point for most economic thinking about savings and insurance purchase decisions for old age is the life-cycle model of behavior which assumes fully rational workers and perfect capital and insurance markets. In this model, the rational individual who considers his or her full set of future opportunities will save optimally for retirement, and will purchase the appropriate amount of insurance for disability and medical expenditures when retired. Thus, if this model realistically described individual behavior, there would be little need for government intervention in insurance markets. In fact, in this case government intervention would do more harm than good: By forcing the rational individual to deviate from what was best for him or her from the start, the government would lower economic welfare.

There are a number of flaws in this basic model, however, in terms of its conception of both the functioning of capital and insurance markets, and the nature of individual decisionmaking.⁹ These flaws potentially justify government intervention in these markets. But the mere existence of these flaws does not imply that government intervention can raise welfare; it must first be demonstrated that the government's ability to fix these flaws more than compensates for any additional distortions caused by intervention. This section discusses these flaws and how government can potentially fix them; the next section focuses on the distortions that result.

ADVERSE SELECTION

Private capital and insurance markets suffer from adverse selection, because individuals have greater information about their own health and mortality risk than do insurers. Thus, for example, risk-neutral people will only buy insurance if the cost of that insurance is below the expected value of their medical expenditures; otherwise, they are better off paying their medical costs out of pocket. However, if all persons take this view, the insurer cannot break even, since it will only be able to sell insurance to individuals whose medical expenditures exceed the price of that insurance. Thus, there is a market failure, and no individual will be able to purchase insurance. This problem is clearly less severe in reality than in this extreme example, as at least some risk-averse individuals are willing to pay more for insurance than they expect in medical costs. Nevertheless, adverse selection will, in general, result in inefficiently low levels of insurance coverage. This is clearly a problem at all ages; however, the higher variance of medical expenditures for the elderly makes this result especially problematic for this population.¹⁰

The government has a simple tool at its disposal to deal with the adverse selection problem -- compulsory pooling. If all individuals are mandated to purchase insurance, then insurers (or the government) can reliably predict the distribution of risks, and full insurance will be offered. Thus, compulsory pooling fixes this market failure, and potentially improves the welfare of all market participants.¹¹ Compulsory pooling of all elderly is the concept behind Medicare, although the program is not financed by mandating the elderly to purchase insurance, but rather through taxes on all citizens.

Adverse selection may cause inefficiently low savings for retirement as well, by causing failure in private annuities markets. In this case, adverse selection arises from the fact that the return from an annuity, purchased on a given date, will rise as an individual lives longer. Thus, only individuals with long life expectancies will want to buy annuities. Understanding this, financial intermediaries will not offer annuities at terms that are fair for the average retiree, since only the longest lived retirees will buy them. Consequently, perhaps, annuity markets are not widespread, and the return to annuity investments is estimated to be far below that of other savings vehicles (Friedman and Warshawsky 1990). Once again, the government alone has the power to fix this "market failure": It can do so by mandating that all people buy annuities from the same pool (Social Security), so that the average payout can be predicted fairly accurately.¹²

MYOPIA AND THE SAMARITAN'S DILEMMA

The second major flaw in the model cited above is that individuals may not be rational, forward-looking savers and insurance purchasers, but rather myopic consumers who only consider the near future. If individuals aren't saving or insuring on their own -- even if it is a rational thing to do -- the government can raise welfare by forcing these individuals to save or to purchase insurance. In fact, a sizable share of workers appear, based on their savings behavior, to be myopic. Diamond (1977) estimated, in an era of a much less generous Social Security program (1969-71), that over 20 percent of older workers had very inadequate savings for retirement. Diamond and Hausman (1984) found that over 30 percent of older males in the 1970s had net wealth below \$4,000, and that 25 percent of individuals retired even before they were eligible for either Social Security or pension income. This may explain why in 1960, before the rapid growth of Social Security, 40 percent of the elderly lived in poverty; by 1990, that figure had fallen to 15 percent (Cutler and Katz 1991). And Bound (1989) documents that, before the rapid expansion of disability insurance in the 1970s, people with disabilities did not appear to receive much income from private disability insurance.

One means of addressing myopia is to provide support to those who are poor or sick. Such efforts to ease the effects of myopia, however, bring with them a new market failure -- "the Samaritan's Dilemma." In the presence of public programs for poor individuals or charity medical care for the uninsured, it may be rational to undersave or underinsure.¹³ That is, if individuals know that the state will provide for them when they are old, there is no reason to cut consumption today; it is better to just rely on the government tomorrow. As Bound (1989) notes in his discussion of the pre-disability insurance period, a primary source of income for people with disabilities was state welfare programs; given the presence of these programs, it may have been optimal for these individuals to not insure against disability. In this case, the government can improve welfare by forcing individuals to save or buy insurance. That is, given the fact that the government has already distorted behavior by providing payments to the poor, it may be efficient to further distort behavior by forcing individuals to save.

Forced participation provides another efficiency benefit: By pooling all citizens into one group, the government can greatly reduce administrative costs. Diamond (1977) discusses the lower costs of public pensions, and Diamond (1993) documents the dramatic increase in administrative costs when Chile privatized its Social Security system. Woolhandler and Himmelstein (1991) estimate that the costs of administering public insurance in Canada are much lower than the costs of private health insurance in the United States. Similarly, while the administrative loading factors for private health insurance for medium-size firms (100 to 500 employees) averages 16 percent, and for very small firms (one to five employees) averages 40 percent (U.S. Congressional Research Service 1988), the costs of administering Medicare are only 3.6 percent of benefit payments (U.S. Department of Health and Human Services 1991).

MORAL HAZARD

A final source of failure in private insurance markets is moral hazard: Individuals will react to being insured in a way that will raise the cost of providing that insurance. The classic example of moral hazard is that individuals may no longer buy fire extinguishers for their living rooms once they have fire insurance. In terms of medical care, such a problem can arise both on the demand side, as individuals who pay only a small copayment on the margin demand

excessive care, and the supply side, as physicians whose incomes are tied to the level of treatment provide excessive care. Of course, the provision of government insurance does not solve this problem, and may even exacerbate it.

The Economic Costs of Government Intervention

While there are a number of reasons why government intervention in these private markets may be justified, there are also potentially large costs associated with this intervention. These economic costs are in addition to those of actually financing the program, which are discussed in the following section. This section explores the various nonfinancing costs associated with each program.

POTENTIAL COSTS OF THE SOCIAL SECURITY PROGRAM

There are several potential costs from requiring individuals to save through the public Social Security system. These costs basically stem from two factors:

- The Social Security system leads to a distortion of individual savings behavior.
- The Social Security system induces early retirements.

The Social Security system's distortion of individual savings behavior results in two costs to the economy:

- A lower savings rate by individuals, and
- Lower return on savings invested.

Regarding this first cost, the Social Security system potentially "crowds out" individual savings by forcing workers to save through the public pension. The extent of this phenomenon is subject to some debate; however, careful analysis suggests that private savings fall by 25 to 40 cents for each dollar of Social Security wealth (Diamond and Hausman 1984).¹⁴ Since Social Security doesn't represent actual savings, rather an unfunded transfer from young to old, total savings in the United States could be much higher in the absence of this program. Several studies (e.g., Summers 1991) have noted the strong correlation between national savings and economic growth, and have suggested that the low rate of savings in the United States is responsible for our stagnating standard of living. If this view is correct, then the reduction in private savings associated with Social Security could be a very significant inefficiency.¹⁵

Second, the rate of return currently offered by Social Security is below that of private capital investments. Since the benefits paid out today are tied directly to taxes collected today, the return on savings forced through the Social Security system is the rate of growth of the population plus the rate of growth of wages.¹⁶ By forcing individuals to save at a below market rate of return, the government may lower the economic welfare of rational life-cycle savers who had better investment opportunities elsewhere. So, not only are savings lower because of Social Security, but those individuals who would have saved enough without the program are now forced to channel those savings through an inefficient mechanism.

As Feldstein (1985) has noted, trading off these costs to rational savers against the gains to myopic individuals described above will produce the optimal size for a public program. That is, imagine a world with two types of consumers -- rational and myopic. A larger Social Security program imposes costs on the rational consumers to provide gains to the myopic ones. Feldstein argues that the costs to rational consumers are so large that even if 20 percent of the population is very myopic -- as suggested by Diamond (1977) -- the Social Security program should still be much smaller than it is today. Feldstein's exact calculation of optimal Social Security program size is very preliminary; in particular, it depends on a certain model of individual behavior that may or may not apply in reality. His argument is compelling nonetheless.

The second set of economic costs associated with the Social Security program stem from induced early retirement. Given the structure of the earnings test and delayed retirement credit, individuals have not been fully compensated for working past age 65. As a result, Social Security may induce them to retire earlier than they otherwise would have. Past evidence on this point (Diamond and Hausman 1984, Burtless 1986) suggests that more generous Social Security benefits do induce individuals to retire earlier (program growth alone, however, has not been large enough to explain the substantial drop in the labor force participation of older males since 1960).

There are at least two important costs of induced early retirement. The first is the lost productivity from older workers

who are now no longer on their jobs. The size of this productivity loss will depend on the extent of underemployment in the United States, since unemployed younger workers may take these jobs. But productivity may fall even if younger workers replace older, since the older workers may have had accumulated skills that the younger workers cannot match. The second cost of early retirements is that total wage and salary earnings will be reduced by substituting low-earning young workers for high-earning older workers. This reduction will, in turn, lower the base from which both social insurance and other government programs (e.g., national health insurance) can be financed.

POTENTIAL ECONOMIC COSTS OF THE DISABILITY INSURANCE PROGRAM

The major distortion arising from the provision of public disability insurance is based on the difficulty in distinguishing those truly unable to work from those who are able to work, but want to retire early. The availability of disability insurance, therefore, may cause individuals to quit working at a younger age than they otherwise would have. This argument has been made most compellingly by Parsons (1980), who noted a strong correlation between the growth in disability insurance enrollment and the reduction in labor force participation by older males in the 1970s. He then documented that individuals eligible for more generous disability insurance benefits were also less likely to participate in the labor force. Parson's findings were criticized by Bound (1989), however, who found that among rejected disability insurance applicants, who presumably were more healthy than those approved for the program, only 50 percent returned to work after being rejected. Bound's findings, while not proving that every individual receiving disability insurance was "deserving," suggest that the majority of the disability insurance population is truly disabled, and that the growth of the program can explain less than half of the decline in the labor force participation by older males. The magnitude of the economic distortion from the disability insurance program, therefore, remains an open question (see Bound (1991) and Parsons (1991) for a further discussion of this issue).

Potential Costs of the Medicare Program

The major potential cost associated with the provision of public health insurance under Medicare is excessive use of medical care, arises from moral hazard. If the government-mandated insurance policy is more generous than a privately supplied policy in the absence of government intervention, this moral hazard will worsen. And, if there is a connection for the elderly, and the coverage or costs for other groups between this excessive coverage, this moral hazard could have critical implications for overall national medical costs.

In reality, Medicare hospital coverage is less generous than the typical private insurance policy. The Medicare copayment rate for hospital stays ranges from 20 percent up to a fairly high out-of-pocket maximum, while the national average copayment rate during the 1980s was 5 percent (Newhouse 1992). However, the majority of the elderly have insurance policies that cover their copayments; these policies were either purchased privately ("Medi-Gap" policies) or provided publicly (through Medicaid for the elderly poor). Furthermore, if Medicare did not exist, the private insurance policies offered to the elderly might feature even higher copayment rates.¹⁷

The Economics of Payroll Taxation

Alternative tax mechanisms are generally analyzed and compared along two dimensions -- efficiency and equity. Efficiency is a measure of the lost production per dollar of revenues raised by a tax. Virtually all taxes entail some efficiency cost.¹⁸ Equity is a measure of the fairness with which tax revenues are collected. This fairness is a function of the distribution of the tax burden across different groups (generally, income classes) in society. In general, payroll taxes are considered to be relatively efficient, and relatively inequitable. The central problem, then, is to identify the most efficient and equitable way to raise current payroll tax revenues.

BASIC MODEL

The standard demand and supply model of the labor market can be used to assess the efficiency and equity of payroll taxation (see Figure 1). The horizontal axis measures the level of employment; the vertical axis measures the wage level. The upward-sloping relationship SoL represents the supply of labor by workers in a world without taxation; as wages rise, more persons are willing to work. The downward-sloping relationship D0L represents the demand for labor by firms in the no-taxation world; as wages rise, firms desire less labor. The no-tax equilibrium is achieved at E0,W0, where demand equals supply.

Payroll taxes in the United States are levied equally on firms and workers. Consider first the effect of a payroll tax on a firm. The tax reduces the amount that the firm can pay for a given level of employment, shifting labor demand inward to D1L. This decrease reduces the wage that workers are paid to W1, and employment falls to E1. The fall in employment is a direct measure of the inefficiency of the payroll tax. Thus, we can speak interchangeably of the

disemployment effect and the efficiency cost of payroll taxation.

There are two interesting points to note about this result.

- First, although the tax was levied on firms, workers' wages fell. Contrast this finding with the effect of an equal-size payroll tax on the worker. This tax reduces the amount that the worker will receive for additional work. This decrease in turn increases the wage that workers will demand for a given level of work, shifting labor supply backwards to $S1L$ and increasing the wage that workers are paid to $W2$. However, workers must pay taxes from this higher wage, so their net wage is once again $W1$, the same as in the case of taxation on firms. That is, the "wedge" between $W1$ and $W2$ (the difference between what is paid by firms and what is received by workers) is exactly the amount of the tax, τ . Similarly, the employment level once again falls to $E1$, as with the tax levied on firms. This simple example illustrates a fundamental tenet of the theory of taxation: The economic effects of a tax are independent of who actually remits that tax. In either case, the burdens borne by the worker and the firm are determined by the structure of the labor market (more specifically, the relative elasticities of labor supply and demand), not by who under the law signs the check to pay the tax.¹⁹
- Second, the fact that workers' wages do not fall to fully offset the payroll tax implies that the cost of compensation to the firm has risen. The result is the fall in employment to $E1$. This is the major source of discontent with the payroll tax -- the claim that it raises the net costs of production, leading to disemployment.²⁰ The key point to note is that, in this model, the disemployment effects of payroll taxes are proportional to the extent to which they are shifted to workers' wages.²¹ If workers fully bear the incidence of the tax through lower wages, there is no net increase in the firms' costs of compensation, and employment will not change. If, on the other hand, workers do not fully bear these costs, firms may respond by reducing employment.²²

We therefore see the fundamental tension between efficiency and equity in analyzing payroll taxation. Shifting more of the tax burden to wages would be viewed as inequitable:

Workers would be paying more and firms less. Yet, increased shifting to wages mitigates the disemployment effect, or efficiency cost, of payroll taxation. This tension will emerge repeatedly as we contrast payroll taxation to the alternatives.

Thus, in contrasting the costs and benefits of social insurance programs, we must add to the cost column the potentially large efficiency costs from funding these programs.²³ The size of this efficiency cost is determined by two basic tenets of taxation theory. First, the efficiency cost of payroll taxation rises as firms and workers become more sensitive or "elastic" to the wages paid out and received. If firms respond to slightly higher compensation costs by substantially reducing their labor force, then even small taxes will lead to large reductions in employment -- and therefore to high efficiency costs. Similarly, if individuals do not change their work patterns unless there are major changes in their pay, then small taxes on workers will not affect the amount of labor supplied -- and therefore have little efficiency cost.²⁴

Second, the efficiency cost of a tax rises sharply as the tax rate rises (the efficiency cost rises with the square of the tax rate). Starting from a point of no taxation, a small increase in taxation has very little effect on economic behavior. However, once taxes are in place, and employment has fallen, there is a smaller payroll base to which future tax revenues can be raised. Thus, raising that next dollar of tax revenues will require a higher tax rate than the previous dollar, since there is a smaller base on which the tax rate can be applied. The result of the higher tax rate will be a larger reduction in employment, per dollar of revenues. This implies that low taxes on a broad base of income have much smaller efficiency costs than high taxes on a more narrow income base.

Complications to the Basic Model

Two factors complicate the simple model presented above -- the minimum wage and the tax-benefit linkages.

The above analysis assumed that firms could readily pass on their payroll tax costs to their workers in the form of lower wages. However, if workers are already earning the minimum wage, such shifting to wages is not possible. This is illustrated in Figure 2, where the minimum wage is equal to the equilibrium wage pre-tax. In this case, a tax on the worker has the same effect as in Figure 1. However, a tax on firms causes a much larger fall in employment, since worker wages cannot be reduced; therefore, the net compensation cost to the firm has risen. The result is that employment now falls to $E2$; the presence of the minimum wage increases the disemployment effects of taxes levied

on firms. Thus, it becomes relevant whether the tax is levied on workers or firms: Payroll taxation of firms will cause a much larger fall in employment than income taxation of workers.

How relevant is this consideration in designing tax policy? A key determinant of its relevance is the concentration of the wage distribution near the minimum wage. If very few workers earn near the minimum, then the disemployment effects are lessened. Data on hourly earnings from the Merged Outgoing Rotation Group file of the 1991 Current Population Survey are used here to assess the importance of the minimum wage. These data provide a large nationally representative sample of individuals, with information on hourly wages, weekly wages, and hours worked. Data are also included in this file for those who do not report an hourly wage (their wages are calculated at a weekly wage rate and divided by weekly hours). The sample used in this analysis consists of all workers who work 20 hours per week or more.

The data indicate that only 7 percent of workers earn less than or equal to the minimum wage plus 7.65 percent (the employer portion of the payroll tax). This is a very small share of the workforce, suggesting that the minimum wage does not appreciably increase the efficiency costs of payroll taxation.

The second complication to the basic model is highlighted in an important article by Summers (1989). According to the benefits formula used by Social Security and disability insurance, increased earnings are, to some extent, reflected in increased benefits. This tax-benefit linkage is not perfect: As discussed below, for many workers one more dollar of taxation does not represent one more dollar of benefit. However, the fact that such a linkage exists affects this analysis. The key point is that since some of a worker's payroll taxes come back to him or her in the form of benefits, the disemployment effects of payroll taxes are reduced because workers are more willing to accept lower wages (see Figure 3).

Consider how a payroll tax that finances increased benefits to workers will affect wages and employment. Such a tax would shift demand to D1L. In the absence of any tax-benefit linkages, employment would fall to E1. In the presence of such linkages, however, workers receive higher net compensation than in the pure tax case, since the tax "buys" them some benefits. Workers are therefore willing to work harder for a given wage, shifting labor supply outwards to S1L. As a result, employment falls only to E2. Thus, due to this tax-benefit linkage, there is a much smaller distortion of employment levels and compensation from payroll taxation because workers value the benefits they are receiving, and so will accept lower wages.

The strength of the tax-benefit linkage depends on the extent to which workers perceive that the taxes are returned to them as benefits. If workers perceived every dollar of taxes as being returned in benefits, they would not consider the tax to be a burden at all, and there would be no distortions.²⁵ Therefore, the efficiency cost of social insurance financing may be much lower than is generally perceived.

Note, however, that while the strength of such tax-benefit links are uncertain for Social Security and disability insurance, they are nonexistent for Medicare. This is because additional work has no effect on ultimate receipt of Medicare, which is a universal entitlement benefit. There is no link between work and benefit receipt in a universal program -- an important distinction between the potential labor market effects of Social Security and disability insurance versus Medicare.

Evidence of the Efficiency Costs of Payroll Taxation

As noted above, the efficiency costs of payroll taxation will fall as the taxes are more readily shifted to workers' wages. Early research on the incidence of payroll taxation involved time-series studies of changes in payroll taxes in the United States and abroad. This research produced mixed results. Brittain (1972) reported that the payroll tax was fully shifted to wages, but his finding was criticized by Feldstein (1972). Holmlund (1983) used time-series data on payroll taxes in Sweden to study a period when the payroll tax increased from 14 to 40 percent: He found that roughly 50 percent of the tax was shifted to wages in the short run.

More recent research has focused on the payroll tax financing of specific programs. Gruber and Krueger (1991) studied the worker compensation program which provides insurance for on-the-job injuries and is the oldest and largest mandated benefit program in the United States. Mandated benefits differ from payroll-tax-financed benefits in that the government does not tax the firm or workers for a publicly provided service, but instead mandates that the firm purchase that service itself. The economics of mandated benefits are quite similar to those of a payroll tax that finances a social insurance program: The firm incurs some gross cost, and that cost is offset by the extent to which it can be shifted to workers' wages. This shifting, as in Summers' model, is a function of the structure of the labor market and of worker valuation of the benefit.

The worker compensation study examined large variations in the cost of workers' compensation across states and over time during the 1980s. It found that 85 percent of these costs were shifted to workers' wages, and that there was no significant effect on employment.

A related study examined the impact of mandated comprehensive health insurance for maternity on the wages of both women of child-bearing age and of their husbands who covered them under their health insurance plans (Gruber 1994). This study found that approximately all of the costs of this mandated benefit were shifted to the wages of these workers, with no effect on their net labor supply.²⁶ This recent research suggests that, since the costs of social insurance financing can be largely shifted to workers' wages, the net distortion of these programs will be small.²⁷

Payroll Taxation Versus Income Taxation

A natural alternative to financing social insurance programs through payroll taxation is to finance them through general revenues. This section contrasts the economic effects of payroll taxes with those of one form of general revenue raising, the individual income tax.²⁸ This comparison is made in terms of both efficiency and equity. Basically, financing these programs through an income tax would most likely entail greater efficiency costs: It would offer little advantage by way of broadening the tax base, but would lead to the taxation of more elastic sources of income. On the other hand, income taxation is substantially more progressive than payroll taxation, and shifting to the income tax would redistribute the burden of financing from the bottom to the top of the income distribution. Thus -- unless the structure of either the income or payroll tax were changed -- shifting from payroll to income taxation would probably cause economic inefficiencies but would increase tax equity.

In contrasting these sources of finance for social insurance programs, the benefits side of the programs are held constant -- i.e., it is assumed under both funding mechanisms that the benefits paid to retired workers remain a function of their lifetime work experience. This assumption has important implications for both the efficiency and equity comparisons of payroll and income taxation.

- In terms of efficiency, it implies that the shift in labor supply induced by tax-benefit linkages (see Figure 3) will also exist under income taxation. So long as benefits are calculated based on past earnings histories -- regardless of the source of financing -- tax-benefit linkages will pertain.
- In terms of equity, this approach means that only the differential impact of alternative sources of finance is considered, rather than the net equity implication of these programs as a whole. For example, the Social Security program as a whole may be progressive, even as the tax that finances the program is regressive. In this case, moving to more equitable income taxation would be a further increase in progressivity.

EFFICIENCY

The key determinant of the efficiency of these alternative revenue sources is the breadth and elasticity of the relative tax bases. As noted above, the distortion from taxation falls as the size of the tax base increases, but rises with the elasticity of the taxation source. Income taxes potentially offer a much larger tax base than payroll taxation, due to the inclusion of unearned income. Furthermore, the fact that payroll taxes are capped, while income taxes include all wage and salary income, further increases the breadth of the latter tax source. Thus, if the elasticity of the two sources of income (wage and salary versus unearned income) were the same, it would appear that shifting from payroll to income taxation could raise efficiency.

This conclusion, however, is incorrect due to the nature of the U.S. income tax system. The income tax base has a large number of exclusions -- such as those for dependents, charitable giving, and mortgage interest payments -- that render this base a very incomplete measure of total income in the United States. Thus, the relative sizes of the income and payroll tax bases is not obvious without further analysis.

The base for income taxation, total taxable income is reported by the Internal Revenue Service (IRS 1992), as is total wage and salary earnings. However, the relevant comparison for contrasting current payroll taxation to income taxation is total taxable income versus the amount of earnings below the taxable earnings maximum. This information is not readily available from IRS; it is also difficult to infer this information from standard sources on earnings. Therefore, data from the Treasury Department's Individual Tax Model is used, along with the National Bureau of Economic Research's TAXSIM program. The model provides information on tax returns for a large sample of taxpayers, and TAXSIM calculates the tax rates paid by those taxpayers: Together, these sources can be used to

calculate the fraction of earnings above and below the taxable maximum.²⁹ The data used here are for 1989, the most recent year available.³⁰

In 1989, the total taxable income base was \$2.173 trillion. In contrast, the taxable base of wage and salary earnings below the taxable maximum was only \$12.9 million smaller, which is a trivial amount given the size of the social insurance programs under discussion. Thus, the relative sizes of the tax bases are virtually equal: Although capped earnings may be a smaller base for taxation than comprehensive income, it is about the same size base as that resulting from U.S. income taxation.

The discussion thus far has assumed that the relative elasticities of these alternative tax bases are equal. In fact, this may not be a tenable assumption. Past evidence suggests that the labor supply of male primary workers is fairly inelastic with respect to the wage they are paid, while the labor supply of secondary earners such as spouses is somewhat more elastic. On the other hand, other forms of income taxed under the personal income tax appear to be much more responsive to taxation. For example, capital gains realizations have been shown to be very sensitive to their tax treatment (Auerbach 1988). Charitable deductions, which lower the taxable income base, are also very sensitive to tax rates (Clotfelter 1990). Recent evidence suggests that overall taxable income is more elastic with respect to the tax rate than is labor income alone (Feldstein 1993, Navratil 1994).³¹

Thus, it seems clear that income taxation would be a more inefficient source of revenues than payroll taxation. The size of the tax base would be no larger, so there are no gains from being able to spread tax revenues more widely. And income is more elastic, so it would most likely take a much higher tax rate on income to raise the same amount of revenues as a payroll tax, leading to higher efficiency costs of taxation.

EQUITY

The other important consideration for examining income versus payroll taxation is the distribution of the tax burden across taxpayers. A standard criticism of payroll taxation, relative to broader income taxation, is that it is less equitable. This is true for two reasons. First, unearned income is distributed in a much more "pro-rich" fashion than earned income, so that a tax on all income is, by definition, more progressive. Second, payroll taxation is capped, so high-income individuals escape this tax burden on income above the cap.

This section again uses data from the Treasury model and TAXSIM to demonstrate the relative equity of these two sources of revenue raising. The analysis assumes that all of the tax is borne by workers in the form of lower wages. To contrast the equity of payroll and income taxation, the effective tax rates paid by taxpayers of different income are compared. Income is here defined as total positive income -- i.e., the sum of the income elements reported on tax returns which are positive, with negative elements being set to zero.³²

The left-hand side of Table 3 compares the distribution of effective tax rates across income groups for the income tax, the payroll tax, and the combination of the two. As expected, the income tax is found to be much more progressive than the payroll tax. For the bottom 5 to 10 percent of taxpayers, the effective income tax rate is actually negative, due to the presence of the earned income tax credit, which subsidizes labor supply for low earners. The rate then rises gradually, reaching a maximum of 17.4 percent for the top 5 percent of taxpayers.

In contrast, the effective payroll tax rate is virtually flat for the bottom 80 percent of taxpayers; note that for this group, payroll taxation represents the majority of their tax bill. For the top 20 percent of taxpayers, payroll tax rates actually decline. Payroll taxes are therefore much less equitable than income taxes. This becomes a key equity consideration when payroll taxes represent the majority of taxes paid for by such a high fraction of taxpayers.

Contrasting Payroll and Income Taxation

Deciding whether to tax payroll or income comes down to a classic tradeoff between efficiency and equity. A relatively inelastic tax base means that payroll taxes are probably a more efficient source of revenue than are income taxes. On the other hand, payroll taxes are much less progressive than income taxes.

This assessment, of course, assumes that the structure of these taxes would remain the same as at present. If these structures were changed, so too would be the relative attractiveness of these taxes.

For example, if the income tax base expanded by removing or limiting the mortgage interest deduction, the attractiveness of income taxation would increase for three reasons.

- First, the tax base would be larger, so there would be a lower efficiency cost per dollar of revenue raised.
- Second, the income tax base would be less elastic. Income taxation is more elastic than payroll taxation largely because there are a number of ways to protect income from taxation, such as the mortgage interest deduction. Limiting these exclusions would reduce the extent to which reported income can be reduced in response to higher tax rates, and thus limit the efficiency cost of income taxation.
- Finally, income taxes would become even more equitable in many cases. Because tax rates rise with income, any deduction from taxable income is regressive. Thus, removing or limiting the mortgage interest deduction would make the income tax system more progressive.³³

Alternatively, the structure of payroll taxation could be changed to make it more equitable. A logical way to do so is to remove the cap on taxable earnings for Social Security and disability insurance (the cap for Medicare was removed beginning with the 1994 tax year). The effects of this change will vary, however, based on tax-benefit linkages and the benefits structure. For example, if no additional benefits are to be paid on earnings above the cap, a tax-benefit linkage are large then the tax change would carry large efficiency costs. However, if tax-benefit linkages are small, removing this cap (while keeping the benefits structure unchanged) could potentially increase both the efficiency and the equity of the Social Security system.

The efficiency consequences of uncapping the payroll tax are mixed. On the one hand, this uncapping could increase the payroll tax base substantially. If all wage and salary income were subject to the payroll tax, the tax base would expand from \$2.16 trillion to \$2.61 trillion (based on calculations using Treasury data and TAXSIM) -- an increase of over 20 percent. In 1989, the total tax rate used to finance Social Security and disability insurance was 12.12 percent. The same revenues could have been raised with an uncapped tax base and a tax rate of 10.03 percent. Using the rule that the efficiency cost of a tax rises with the square of the tax rate, the efficiency cost of financing these programs could have been reduced by 32 percent by extending the tax base to all wages and salaries.

On the other hand, the wage and salary income of top earners may be more elastic than that of lower income earners. High-income individuals receive more fringe benefits and other diverse sources of compensation that allow for more discretion in the form in which payment is received. For example, if the payroll tax were uncapped, executives might switch from cash compensation to stock options. While other workers have some opportunity for this type of arbitrage using fringe benefits such as health insurance, the opportunities are more abundant for top earners. Feenberg and Poterba (1992) document that wage and salary income for the top 1 percent of taxpayers rose dramatically after the Tax Reform Act of 1986 lowered marginal tax rates on earned income. And Navratil (1994) finds that the wage and salary income of top earners (more than \$50,000 per year in 1980 dollars) is much more elastic with respect to tax changes than is that of all earners.

Income tax revenues -- as well as payroll tax revenues -- are affected by this practice of high wage earners reducing their reported earnings in order to avoid increased payroll taxation. Since the marginal income tax rate on top earners is over three times as high as the marginal payroll tax would be, reduced earnings by top earners could quickly mitigate any potential gains from extending the payroll tax. Thus, the substantial elasticity of earned income by higher income individuals means that increases in payroll taxes both raise less revenues than expected and reduce income tax revenues collected from those individuals.

Navratil (1994) estimates an elasticity of earned income with respect to payroll taxation for high-income earners of approximately one. This estimate, along with information on payroll and income tax revenues can be used to determine the revenue effect of uncapping the payroll tax. If a straight 12-percent uncapped payroll tax is assumed, then \$43.2 billion would be raised in additional payroll tax revenues. However, the net revenue increase would only be \$11.7 billion -- just 21 percent of the total amount raised. This disparity is due to the fact that the tax would cost \$31.5 billion in lost income tax revenues.³⁴

Table 3 explores the equity implications of uncapping the tax base by presenting the payroll and total tax burdens under the current system, and with the tax base uncapped, by income class. The uncapping policy has no effect on 90 percent of all taxpayers. It does, however, substantially increase the net taxes paid by the wealthiest taxpayers. In fact, it increases the effective tax rate of the top 5 percent of taxpayers by approximately 20 percent.

The efficiency consequences of uncapping the payroll are unclear. These consequences depend on the tradeoff between having a larger but more elastic tax base, and on the efficiency cost of lowering taxes on a population with tax-benefit linkages (those below the cap) and raising them on a population with no such linkages. (This last consideration is not relevant for Medicare, since there is no marginal tax-benefit linkage for that program.)

To summarize, then, there are two options for increasing the relative desirableness of taxing income rather than payroll -- broadening the income tax base, and making the payroll tax more progressive by uncapping it. The former option could increase both efficiency and equity; the latter would have uncertain efficiency consequences and would affect equity only at the very top of the income distribution.

Political Reality

In reality, efficiency and equity may take a back seat to an even more important factor: public perception. Most taxpayers appear to believe that firms pay payroll taxes, and people pay income taxes. For this reason, payroll taxation has often been called a "hidden tax." If the average voter does not understand the basics of taxation theory as documented above, there could be an enormous political cost in moving from a system of shared payroll tax financing to a system in which workers pay the full cost in the form of an income tax.

Furthermore, the current analysis has assumed that the structure of the income tax would remain unchanged if social insurance financing was moved to income taxation. If the current tax structure represents society's underlying preferences for redistribution, then the redistributive effects of switching Social Security and disability insurance financing to an income tax base could be undone by a compensating reduction in the progressivity of the income tax.

PRIVATIZATION OF SOCIAL SECURITY AND DISABILITY INSURANCE

Privatizing social insurance has been a prominent policy option for many years; see Ferrara (1985) for a typical proposal. A privatized system would operate much as private insurance plans and defined contribution pension plans do today. Individuals would contribute a certain amount of their income each year; this contribution would go into a savings and insurance fund for that worker. Upon retirement, they would receive the proceeds of their savings; if they had or developed a disability, they would be covered by disability insurance.

Privatization differs from the current system in two important ways. First, there is perfect tax-benefit linkage: The contributions made by workers are returned to them directly as benefits. Second, the savings portion of the system is fully funded. Rather than using today's taxes to pay today's benefits, today's taxes are saved to pay tomorrow's benefits. In theory, therefore, privatization offers large advantages by reducing the disincentive effects of payroll taxation.

The first question posed about any privatization proposal is whether program participation will be mandatory. Under one variant, individuals would be allowed to opt out of the system, so that rational savers and insurance purchasers could make their optimal life-cycle choices. For a number of the reasons documented above, such as adverse selection and myopia, opting out would violate the spirit of these programs. Therefore, this section only considers plans that would mandate participation by all workers.

Advantages and Disadvantages of Privatization

Privatization offers three clear advantages.

- The first advantage of privatization is the increase in tax-benefit linkages for Social Security. Under the current system, Social Security represents a net tax for many workers, since benefits received fall short of taxes paid.³⁵ Under a privatized system, Social Security would simply be a forced savings program, instead of a tax, so that it should not cause as much disemployment as does the current system of financing.

However, mandatory private savings at the same level as the current payroll taxes would not necessarily eliminate all of the inefficiencies associated with the current financing system. This is because of the importance of perceived benefits to the system's efficiency. If the government is forcing individuals to save more than they would like in the absence of intervention, then perceived benefits will not be as high as taxes paid; similarly, the linkages for disability insurance will not be full if workers do not value the disability insurance they are being forced to buy.

- The second benefit is the increase in national savings. Moving from an unfunded to a funded Social Security system may substantially raise the amount that is saved, for reasons described above, and thereby improve the economy's long-term prospects.

- The third benefit is the reduced distortion underlying retirement decisions. Under a privatized system, there would be no need for an earnings test; since retirees are simply drawing on their own savings, rather than on public benefits, they can be free to otherwise earn whatever they like.

Privatization also poses two major costs. The first is the transition cost involved in switching from an unfunded to a funded system. Currently, the Social Security system faces a huge liability in terms of the benefits accrued by current workers and retirees. This liability is met by current taxes on workers. However, if current workers were switched to a privatized system, other sources of financing would be required to fund these benefits. This would necessitate a very large short-run increase in the deficit, or dramatically increased taxation. The required "double taxation" of one generation has been a primary stumbling block in the transition from public to private Social Security. Similarly, increasing the deficit to fund this payoff would lessen the positive savings impacts of privatization. Given both the current aversion to tax increases and the sizable current fiscal deficit, this double taxation problem seems difficult to surmount in today's political environment.

The second potential cost is the loss of the redistributive component of these systems. Proponents of privatization claim that this redistribution can simply be done elsewhere, perhaps through expanded welfare programs for poor elderly. However, Social Security has two advantages as a redistributive mechanism. First, as a "hidden tax," it may allow policymakers to pursue politically unpopular redistribution. Second, unlike income taxation and welfare, which redistribute from the point-in-time rich to poor, Social Security provides a means of redistributing across lifetime income classes. A large literature documents the fact that annual income measures contain an important transitory component, so that today's poor may be tomorrow's rich, and vice-versa (see, for example, Poterba 1989). In this case, social welfare may be increased by having a mechanism that can redistribute from the lifetime rich to the lifetime poor. Privatizing Social Security would remove our current mechanism for doing so.

Privatizing Social Security and Disability Insurance presents the flip side of switching to income taxation: efficiency gains, with the potential for important equity losses. Furthermore, as with the shift to income taxation, there are major political barriers to this policy intervention these arise from the necessary double taxation of one generation. This political barrier seems sufficiently large to rule out full-blown privatization as a short-run option in the United States.

PARTIAL APPROACHES

There are at least two partial approaches to privatization that could mitigate the disadvantages described above. The first would be to phase in privatization over some long period, or to fund the privatization through deficit increases. In this way, the double taxation could be spread over many more taxpayers; and the required increase in taxes would be small. Of course, the longer that privatization takes to be phased in, the longer the United States forgoes the advantages of privatization -- primarily increases in national savings. More importantly, this option still does not address the potential loss in redistribution from having a privatized system. It remains unlikely that the large implicit redistribution of Social Security can be replaced with explicit redistributive policy such as increased welfare for older persons.

An even more limited partial privatization option is represented by the personal savings accounts (PSAs) of Boskin, Kotlikoff, and Shoven. This plan retains an important feature of traditional privatization plans -- tax-benefit linkage. Individual retirement benefits and disability insurance payments would be based on actual contributions made through taxation. However, the system would remain unfunded, using current taxes to pay for the benefits of current retirees. Thus, PSAs would not be actual savings accounts, but rather a system of credits entitling the worker to some benefits upon retirement. These credits would earn a rate of return set by an independent board of actuaries, in order to ensure sufficient revenues to support the unfunded system. PSAs represent unfunded privatization: Individuals see some linkage between their taxes and benefits, but at a rate of return set to keep the unfunded system afloat.

Compared to traditional privatization, this plan also increases tax-benefit linkages and reduces retirement distortions, since individuals would be free to claim their earned credits at any point beyond a certain age. The plan does not increase national savings, and still forces individuals to save through a relatively inefficient unfunded system. On the other hand, because this plan does not entail the double taxation of one generation, it may be that much more politically feasible. Also, Boskin, Kotlikoff, and Shoven claim that the system could be as progressive as the current Social Security and disability insurance system by making the credits for earnings progressive as well. Of course, as progressivity is increased, tax-benefit linkages are reduced for higher wage earners, limiting the efficiency gains from moving to such a system.

While uncertainties remain over the feasibility and desirability of full privatization, PSAs represent a viable middle ground. Providing more explicit linkage between taxes and benefits would reduce the current system's inefficiency of program financing and distortion of retirement decisionmaking. The implicit redistribution of the program could be

retained, and there would be no large short-run transition costs. Finally, the rate of return under PSAs could be adjusted to ensure that the Social Security trust fund does not run out of money in the 21st century.

INCREMENTAL REFORMS

Both options considered in the previous two sections -- switching to income tax financing and privatization -- contained large disadvantages which offset the potential gains from reform. In this section, two incremental reforms are suggested which will have less far-reaching benefits, but which have little disadvantage either.

IMPROVING INFORMATION

A key point noted above was that the labor market distortions of financing social insurance programs can be reduced by increasing tax-benefit linkages. The current nature of social insurance financing, however, minimizes any possible tax-benefit linkages. Contributions to Social Security and disability insurance are not even labeled as such on individual pay stubs, instead going under the confusing acronym "FICA." And many individuals may not be aware that they are building specific credit for future retirement benefits through the payroll contributions they make. Although it would not increase linkages as much as would privatization, the information given to individuals on the nature of their contributions could be substantially improved. For example, pay stubs could be relabeled to call these payments "contributions." Furthermore, workers could be notified on a reasonably frequent basis (e.g., annually) about their future social security benefits.

Increasing information on social insurance benefits has two advantages. First, it could increase perceived tax-benefit linkages, improving labor market efficiency. Unlike privatization, however, it would not do this by (potentially) sacrificing the redistributive component of the program. Second, it would ease the uncertainty of retirement planning faced by many workers.³⁶

FAMILY-BASED TAXATION

An explicit goal of Social Security, at least initially, was redistribution across generations. As a number of analysts (Boskin et al. 1987, Feldstein and Samwick 1992) note, however, the program is so structured that it redistributes within generations as well. The result is substantial inequities, as some taxpayers with the same income receive much larger benefits than others based on demographic characteristics. These inequities also translate into inefficiencies, since the linkage between taxes and benefits paid is much weaker for some groups than others.

The classic example of this type of problem arises in the treatment of secondary earners. Under the system's current structure, dependent spouses receive the larger of either (1) their Social Security benefit or (2) 50 percent of their spouse's benefit. This means that married couples with a low-earning spouse will receive the same benefits as a single-earner who is married, despite paying higher taxes (since they paid some taxes on the spouse's earnings).

The result is substantial inequities in the distribution of net Social Security benefits (benefits received minus taxes paid). Boskin, Kotlikoff, and Shoven (1985) calculate net benefits in 1985 for a married couple born in 1960 and with a combined income of \$25,000. They find that if the husband is the sole worker in the family, the present value of taxes paid minus benefits received is \$24,899. If the family has an equal division of earnings, however, the value is \$40,208. In other words, the family will pay almost twice as much in net taxes if there are two workers than if there is one. This is because the presence of the spousal benefit places an implicit tax on the work effort of spouses; unless they can earn at least 50 percent of their husband's income, there is no return (from Social Security) in going to work. Additionally, the tax-benefit linkage has been weakened for secondary earners. Given the growth in two-earner couples in the post-war period, this structure is both inefficient and inequitable.

This inequity has been known for many years, and there is a fairly straightforward solution: family-based taxation. The taxes paid by husbands and wives could be pooled into one family account, and the ultimate benefits paid could be based on that family account. The result would be similar to the structure of the income tax: Two families with the same earnings would face the same net tax rate, regardless of the distribution of earnings across family members. Adjustments to this plan for divorces at different ages are readily made. This plan is detailed by the Consultant Panel on Social Security (1976) and underlies the PSA proposal of Boskin, Kotlikoff, and Shoven (1985) described above.

Conclusions

This paper highlights the fact that there are few simple directions for reform. Each option comes with a set of advantages and disadvantages. This paper highlights these, and points out a few general principles that should guide

consideration of the alternatives, i.e.:

- Social insurance programs must be universal in order to overcome such factors as adverse selection and individual myopia.
- In considering alternative financing mechanisms, it is important to measure the extent to which they link the benefits received to the taxes paid.
- Reform alternatives generally pit efficiency gains against equity losses. Even if it is not explicit in the plan, any loss of "hidden redistribution" may entail a long-run reduction in progressivity.

There seems to be little to gain from shifting the financing of social insurance programs from payroll to income taxation. This conclusion could be mitigated by reforming the income tax base, but given the current system of exempting much of income from taxation, there is little reason to shift the tax base. Furthermore, there will likely be sizable political barriers to switching from hidden to explicit taxation.

Privatization of Social Security and disability insurance offers some large efficiency advantages in terms of reduced disemployment effects of taxation, increased savings, and reduced distortion to the retirement decision. But the large short-run cost of financing full-blown privatization suggests that this will be politically difficult to carry out. Spreading this burden over many generations would mitigate the cost, but a large cost would remain: the fact that it may be difficult to redistribute explicitly to lower income elders. The PSA plan appears to represent a sensible first step in the privatization direction, increasing labor market efficiency without burdening the transition generation or reducing the system's progressivity.

Finally, there are two minor system reforms that would increase efficiency and equity with little potential cost -- increasing information, and basing payments on the family taxation principle. These reforms may be a sensible place to start in considering broader changes to the financing of social insurance.

Endnotes

(1) There are other state and local level payroll-tax-financed programs; the most prominent of these is Unemployment Insurance, a state-administered program that provides each benefit for employed people who lose their jobs. This paper focuses on federal programs, although its analysis could readily be extended to subfederal taxation as well.

(2) The description of these programs is current as of 1993. Most of this information is from U.S. Congress, House Committee on Ways and Means (1993), and EBRI (1992).

(3) That is, an individual's earnings in each quarter are expressed relative to average earnings of all workers, so that benefits are based on a worker's relative earnings.

(4) These figure apply to those aged 65 to 69; benefits are reduced by \$1 for every \$2 of earnings above \$7,680 for those under age 65. There is no reduction for those over age 70.

(5) The current taxable maximum is \$60,600, and it rises with inflation.

(6) For a discussion of the optimal savings response to our aging population, see Cutler et al. (1991).

(7) For a period, in fact, benefits were actually double-indexed; see Krueger and Pischke (1992) for details.

(8) The problems in defining disability for the purposes of DI are well known; see Parsons (1991) for a detailed discussion of these issues.

(9) For a classic presentation of these arguments, see Diamond (1977).

(10) The variance of medical expenditures for those aged 65 to 74 in 1980 was \$7,070, as opposed to a figure of \$3,537 for those aged 35 to 44. For people age 75 and above, the variance was \$11,045 (Gruber and Madrian forthcoming).

(11) As Summers (1989) notes, a particularly compelling example of adverse selection arises for firms considering whether to offer insurance for AIDS. Since the firm that first offers coverage for AIDS is likely to attract the sickest workers, no firm will do so, even if all workers would be willing to pay the average cost of insuring themselves against AIDS. In this case, by mandating that insurance cover AIDS, the government may be able to improve the situation for all involved. The technical conditions under which this improvement would be made are explored in Wilson (1977).

(12) The net effect of the annuities market failure on savings is unclear. In fact, increased annuitization may lower the savings of the elderly, since they don't have to save for the possibility that they live longer than expected (Auerbach, Kotlikoff, and Weil 1992).

(13) This point is explored theoretically in Coate (1992) and Vergara (1989).

(14) See Feldstein (1974) for a higher estimate of the adverse impact on private savings.

(15) Note that the Medicare and DI programs may also discourage individual savings as well, since individuals no longer need to save for health insurance against old age or the probability of acquiring a disability. Unfortunately, there is no empirical evidence of the savings reductions caused by these other programs. Given the high level of medical spending by the elderly noted earlier, however, this effect is almost certainly an important one.

(16) Imagine a situation in which each young worker contributes 10 percent of his or her wages to SS, tax collections are distributed equally among all older persons, and all younger persons have the same wages. Then if there were no population growth and no rise in wages, each person, when young, would put in 10 percent of his or her wage and would receive 10 percent of that same wage when he or she retired. But if the population were growing, there would be more young workers than retirees, so each retiree would get more than 10 percent of his or her wages. Similarly, if wages were rising, the base of tax collections would be higher, so that each retiree would get more than 10 percent of their wages. As a result, the rate of return for the average retiree would be the rate of population growth plus the rate of wage growth.

In addition, there will be growth in the return from Social Security rising from increased tax rates on wages, which was the primary source of benefit growth for early Social Security cohorts. For these early cohorts, Social Security may have actually been an efficient savings vehicle; for later cohorts, this is almost certainly not true. See Hurd and Shoven (1985) and Boskin, Kotlikoff, and Shoven (1987) for a discussion of Social Security returns within and across cohorts.

(17) Note that, unlike SS and DI, there is no distortion to retirement behavior under Medicare. This is because benefits are available to all persons at age 65, rather than restricted to those who don't work. It is true that individuals would probably work longer in the absence of Medicare in order to retain their employer-provided health insurance. But this reflects not a distorting effect of Medicare, but rather a failure in the market for non-employer-provided insurance for the elderly.

(18) Some taxes, known as corrective taxes, do not entail efficiency costs, because the economy starts from an inefficient position and taxation moves it toward efficiency. For example, if there is too much pollution, a tax on carbon emissions may increase the efficiency of the economy.

(19) Consider, for example, a tax on sales of gasoline. This tax might be levied on the gas stations, or it might be levied on the consumers when they pay for their gas. Either way, the effect on the net price paid for gas consumers would be the same.

(20) This criticism is often phrased in terms of a reduction in producer "competitiveness" from higher labor costs.

(21) For a given level of elasticity of labor demand by firms. That is, if one firm has more elastic demand for labor than another (a flatter labor demand curve), then a small rise in wages may have much larger disemployment effects in the first firm than the second. In the special case of perfectly inelastic demand for labor (a vertical demand curve), there will be no shifting to wages and no efficiency cost (taxes will simply be paid out of firm profits, so there will be no disemployment). But if two firms have the same elasticity of demand (e.g. they are similar firms in the same industry), then the disemployment effect will be a function of the shifting of taxes to wages.

(22) This conclusion is a function of the limited model used. In general, even if wages do not fall, taxes may be shifted forward to prices as well, with no resulting loss in employment.

(23) Mathematically, this can be expressed as: Huh? formula did not translate... where $DWL =$ deadweight loss, or efficiency cost $? =$ the tax rate $?s =$ the elasticity of labor supply $?d =$ the elasticity of labor demand

(24) High sensitivity to tax changes might be the case, for example, if the government taxed one specific firm in a very competitive industry. That firm would no longer be able to compete, and would go out of business, leading to disemployment. Low sensitivity to tax changes might be the case for a tax on the earnings of the primary earner in each family.

(25) One may wonder why a government mandate is required if a social insurance program is fully valued by workers. As Summers (1989) discusses, the variety of market failures documented earlier may make it difficult for these arrangements to emerge in a free market, thus requiring government intervention.

(26) There was a small increase in hours worked and a decrease in employment; this is consistent with the increase in the fixed costs of employment, with the net effect on hours worked being zero. Since the programs studied in this paper do not represent fixed costs, but rather are financed by taxes as a fraction of payroll, this effect should not pertain.

(27) Note that the distortion from Medicare may be somewhat larger than indicated by previous research; since the benefits are not restricted to workers, there will be no tax-benefit linkage.

(28) Of course, there are other forms of revenue raising available to the government, such as corporate taxation or federal excise taxation. However, taxing individual incomes is the dominant source of revenue at the federal level, so it provides a natural point for comparison. This analysis could readily be extended to consider alternative forms of taxation.

(29) Earnings are defined as wage and salary income plus self-employment income plus farm income. Negative earnings in any of these categories were replaced in this analysis with zero, under the assumption that negative earnings reflect tax shelters.

(30) This cutoff date somewhat limits the applicability of the analysis for current tax policy, since there were significant tax reforms in both 1990 and 1993. However, the net effect of these tax reforms on this analysis should be small. Moreover, the analysis takes into account the fact that Medicare's taxable maximum was removed as of 1994.

(31) This is true for a number of reasons, for example, (1) a less elastic behavioral response of labor supply than of other forms of economic activity; (2) greater opportunities to relabel other forms of income to avoid taxation than is possible with labor income (i.e., shifting from dividends to capital gains when the capital gains tax rate is lower); and (3) more opportunity to evade tax (e.g. claiming artificially high charitable contributions).

(32) See note 29; also see Feenberg and Summers (1990) for an earlier application of this approach.

(33) While the first two comments apply to the removal of any exclusion in the tax code, the last does not; some tax breaks, such as the earned income tax credit, are progressive.

(34) This calculation is done as follows. Assume that the marginal tax rate on earnings in the uncapped range is 35 percent. Uncapping the payroll tax would raise that rate to 47 percent. Navratil finds that the elasticity of earnings with respect to after-tax shares is one. Since the after-tax share is reduced by 20 percent, this would mean that the additional \$450 billion in earnings in the uncapped range would be reduced to \$360 billion. Thus, the uncapped payroll tax would raise an additional \$43.2 billion, but income tax revenues would be reduced by \$31.5 billion. Thus, the net tax revenue gains would be \$11.7 billion, as opposed to the \$54.5 billion assumed with a static tax base.

(35) Calculating the exact fraction of the workforce for whom SS represents a net tax is difficult; the variation in the net tax rate according to demographic characteristics is discussed below.

(36) This could also affect some people's age of retirement, to the extent that workers learn that their ultimate benefits are higher or lower than expected. The net effect on retirement is uncertain, however. In general, reducing this uncertainty about post-retirement income should increase welfare. It could also affect savings behavior if individuals were not previously aware of the magnitude of their SS entitlement.

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Table 1--History of the Payroll Tax

	SS Rate(%)	DI Rate(%)	Medicare Rate(%)	Total Rate(%)	SS&DI Max(\$)	Medicare Max(\$)	Percent Below Maximum
1950	1.50	NA	NA	1.50	3,000	3,000	71.1
1960	2.75	0.25	NA	3.00	4,800	4,800	72.0
1970	3.65	0.55	0.60	4.80	7,800	7,800	74.0
1975	4.38	0.58	0.90	5.85	14,100	14,100	84.9
1980	4.52	0.56	1.05	6.13	25,900	25,900	91.2
1981	4.70	0.65	1.30	6.65	29,700	29,700	92.4
1982	4.58	0.83	1.30	6.70	32,400	32,400	92.9
1983	4.78	0.63	1.30	6.70	35,700	35,700	93.7
1984	5.20	0.50	1.30	7.00	37,800	37,800	93.6
1985	5.20	0.50	1.35	7.05	39,600	39,600	93.5
1986	5.20	0.50	1.45	7.15	42,000	42,000	93.8
1987	5.20	0.50	1.45	7.15	43,800	43,800	93.9
1988	5.53	0.53	1.45	7.51	45,000	45,000	93.9
1989	5.53	0.53	1.45	7.51	48,000	48,000	NA
1990	5.60	0.60	1.45	7.65	51,300	51,300	NA
1991	5.60	0.60	1.45	7.65	53,400	125,000	NA
1992	5.60	0.60	1.45	7.65	55,500	130,200	NA
1993	5.60	0.60	1.45	7.65	58,000	135,000	NA

NA = not available

Notes: Figures are from EBRI (1992). The data in the first four columns are tax rates levied equally on employees and employers. Source: Jonathan Gruber.

Table 2--History of Program Size (in millions of dollars)			
	SS Benefit Payments	DI Benefits Payments	Medicare Benefit Payments
1950	961	NA	NA
1960	10,677	568	NA
1970	28,798	3,085	1,975
1975	58,517	8,505	4,273
1980	105,083	15,515	10,635
1981	123,803	17,192	13,113
1982	138,806	17,376	15,455
1983	149,221	17,524	18,106
1984	157,841	17,898	19,661
1985	167,248	18,827	22,947
1986	176,813	19,853	26,239
1987	183,587	20,519	30,820
1988	195,454	21,695	33,970
1989	207,791	22,911	38,294
1990	222,987	24,829	42,468

Note: Data are from U.S. Department of Health and Human Services (1991). Source: Jonathan Gruber.

Figure 1--Payroll Taxation

Figure 2--Payroll Taxation ad its effect on ??

Figure 3--Payroll Taxation ad its effect on ??

Table 3
The Progressivity of the Income and Payroll Taxes

Income Group	Current System			Uncapping Tax Base		
	Income Tax	SSDI Tax	Combined	Income Tax	SSDI	Combined
0-5%	0.3	10.6	11.0	0.3	10.6	11.0
5-10%	-0.4	12.6	12.2	(0.4)	12.6	12.2
10-20%	1.3	11.3	12.7	1.3	11.3	12.7
20-30%	3.0	11.3	14.3	3.0	11.3	14.3
30-40%	3.7	11.5	15.2	3.7	11.5	15.2
40-50%	6.6	11.9	18.5	6.6	11.9	18.5
50-60%	8.4	12.3	20.7	8.4	12.3	20.7
60-70%	9.8	12.7	22.5	9.8	12.7	22.5
70-80%	10.6	12.7	23.3	10.6	12.7	23.3
80-90%	11.7	12.3	24.0	11.7	12.3	24.0
90-95%	13.9	10.1	24.0	13.9	12.5	26.4
95-100%	17.4	6.4	23.8	17.4	10.7	28.1

Notes: Data were tabulated using U.S. Treasury tax data and National Bureau of Economic Research TAXSIM model. Source: Jonathan Gruber.

TAX POLICY IN THE SECOND CLINTON ADMINISTRATION: A FANTASY

Joel Slemrod

The Scenario

It is January 1996. As President Clinton and his advisers look forward to the presidential campaign year ahead, they have reason for both optimism and concern. A health package has been signed into law, one that the president can claim to be true to the spirit, if not the letter, of the Health Security Act his administration put forward in 1993. The long health care debate has, though, left President Clinton vulnerable to Republican charges of government intrusiveness in the economy -- charges about setting prices, setting insurance packages, restricting the choice of doctors and care, and so on. His political advisors would like to demonstrate that this is an inaccurate characterization of their philosophy of the relationship between government and the private sector.

As the political discussions proceed, the policy advisers in the administration press for further reforms to address the economy's structural problems. Having already tackled health care as well as welfare and trade policy, the tax system is a natural next subject for the administration to address. After all, taxation is the government activity that directly affects more people than any other. The existing income tax system bears the marks of two major initiatives from the Reagan Administration, but has, since 1986, been adjusted only minimally. These recent adjustments were aimed at raising revenues and increasing progressivity, but otherwise lacked a coherent structural reform agenda. Clinton's own tax proposals of 1993 certainly fit that description. They were designed to raise revenue for deficit reduction and stay within the strict progressivity standards set during the first Clinton presidential campaign -- that the bulk of the revenue be raised from families and households with annual income in excess of \$100,000.

Urged on by both the politicians and the wonks, President Clinton, in his State of the Union Address, promises to study and propose tax reform initiatives. This echoes a similar pledge by Ronald Reagan in his 1984 State of the Union Address. The emphasis is different this time, however.

Clinton stresses two themes. The first is to simplify the tax system so that it will no longer be a factor in

every business and personal financial decision -- in effect, to deregulate the economy by streamlining the tax system. The importance of streamlining the tax system is emphasized by the second theme: the imperative of a rapidly globalizing U.S. economy. Just as global competition has forced many U.S. companies to become more efficient in their operations, so it demands that U.S. institutions also become more efficient. The current tax system needlessly penalizes business, which in turn penalizes those who rely on business for jobs. President Clinton pledges to reform the tax system to reduce that penalty.

WORKING GROUP A: THE CONSUMPTION TAX ALTERNATIVE

Immediately following the State of the Union Address, two high-level working groups are formed to investigate the options for tax reform and come up with a tax proposal for the hoped-for second term. Working Group A is charged with investigating a truly profound change in the U.S. federal tax system -- replacing some or all of income tax revenues with revenue from a new federal consumption tax. This shift would make the two big tax changes of the 1980s look like feeble incrementalism. Moreover, it offers a potentially major streamlining of the tax system and would allow that system to respond more precisely and efficiently to the demands of a global economy.

Consumption taxes come in many shapes and sizes. The most straightforward is the familiar retail sales tax, under which all the tax is collected at the final, retail, stage of the production and distribution process. An alternative is a multi-stage consumption tax, in which a portion of the tax is collected at each stage of the process; the value-added tax (VAT) is the most widely used example of this kind of consumption tax.

Another variant of consumption tax relies on the fact that income equals consumption minus savings, which implies that consumption can be measured as income less savings. A consumption tax of this sort -- a personal consumption tax -- operates much like a personal income tax, with the added feature that net savings are deductible from taxable income, as if there were individual retirement accounts (IRAs) with no limits on the amount deductible and no penalties for early withdrawal. Because personal consumption tax is based on individual tax returns, tax progressivity can be achieved by adopting a graduated rate structure. A disadvantage of this tax is that it would require taxpayer reporting and Internal Revenue Service (IRS) monitoring of all individual financial transactions -- tax's complexity.

As observers of the IRA debates know, in the long run, IRA-type treatment of savings is the same as just exempting from taxation the return to savings. Thus, a "back-ended" personal consumption tax would simply eliminate capital income from the tax base, turning the comprehensive income tax into a labor income tax. This highlights an important, but little understood, equivalence: Setting aside transition effects, a consumption tax is equivalent to a labor tax.

Consumption taxes offer two potentially important advantages over the present system. The first is that they eliminate all tax on the income from savings and investments. In contrast, a comprehensive income tax taxes income from labor and income from capital equally. Taxing capital income places a wedge between the rate of return earned by productive investments and the rate of return earned by the individuals whose savings finance the investment. Eliminating this wedge by moving to a consumption tax will either lower the cost of capital for investment or increase the rate of return to savings, or some combination of both. To the extent that this increases savings, it will address a problem that many experts rank at or near the top of American economic ills: the comparatively low and declining U.S. national savings rate.

The other potential advantage is simplicity. Correctly measuring capital income poses some very difficult conceptual and practical issues including, but by no means limited to, measuring the depreciation of capital assets and separating out the real return to capital from the inflation-related component. These difficulties mean that the true effective rate of tax on capital inevitably -- and capriciously -- depends on the asset type, the way it is financed, and other factors. This tax differentiation inadvertently favors some investments over others, and thereby causes a wasteful allocation of investment. Eliminating the taxation of capital income would also allow a significant reduction in the administrative and compliance costs of taxation, which are currently well over \$50 billion annually. This probable savings does not, however, apply to the personal consumption tax, because this latter tax would require that financial transactions and income flows be monitored and records kept.

RETAIL SALES TAX

The form of consumption tax that promises the most simplification is already well known to most Americans -- the retail sales tax. All but five states now levy such a tax, although the states differ both in the rate they apply to final sales and the range of goods they include in the tax base. Why not simply eliminate all income taxes and institute a federal retail sales tax? The usual objection is based on two structural administrative concerns.

- It is difficult to apply the tax only to final sales to consumers. In most states, this restriction is achieved by giving businesses a registration number to present when purchasing goods from other firms, exempting them from sales tax liability. But this procedure is imperfect, and many businesses end up paying tax on purchases used in their business. Thus, a tax penalty is put on goods and services that require a series of transactions among unrelated firms, and a tax advantage is offered to vertically integrated operations in which most processes are done within a single firm.
- The onus of tax enforcement is placed entirely on the retail sector. This is not to say that the entire burden of the tax is borne by retailers, for the tax is actually largely shifted away from them in the form of higher prices paid by consumers. But all taxes are remitted by the retail sector. The federal retail sales tax rate required to replace all the revenue of the current income tax would be high enough (probably about 25 percent) that there would likely be considerable difficulty in limiting tax evasion. Based on a review of worldwide practice, Tanzi (Forthcoming) concludes that a retail sales tax of 10 percent is probably the maximum rate feasible for collection and remittance by the retail sector. He further notes that a federal retail sales tax at the rate necessary to replace income tax revenue would create major problems of evasion.

VALUE-ADDED TAX

Most economists are persuaded that these structural defects are serious enough to abandon the concept of a federal retail sales tax in favor of a different variety of consumption tax -- the value-added tax. Although never used in the United States (except under a different name in Michigan), the value-added tax is not the pipe dream of idealistic tax designers. On the contrary, it has been a staple of European tax systems since the 1950s. In fact, of all the major industrialized countries, the United States is the only one that does not use the VAT or some variation on it. (Japan and Canada were the last holdouts.)

Under a VAT, all businesses -- not just those that are incorporated, as under a corporate income tax, or those that sell to retail customers, as under a retail sales tax -- are subject to tax. The tax base for a VAT is very simple -- sales revenue minus the cost of purchased inputs, where the definition of purchased inputs does not include payments to labor but does include purchases of capital goods.

The key difference between a uniform-rate retail sales tax and a uniform-rate VAT is the method of collection. To see this, consider a 10-percent VAT. Whereas under a retail sales tax, 10 percent of the revenue from final goods is collected at the retail stage, under a VAT exactly the same amount of revenue is collected, a little at a time, at each stage of the production process. Although this requires the involvement of more firms in the tax process than does a retail sales tax, it also spreads the burden among more firms. Further, it adds a critical element of self-enforcement to the tax collection process, because firms can claim tax credits for purchased inputs only if they can furnish evidence that the inputs were purchased from a tax-paying firm. This self-enforcement feature is impossible at the retail level, as consumers have no incentive to ensure that they make purchases from tax-law-abiding retail establishments.

Just how much simplification would a VAT provide? That depends on the outcome of a couple of critical decisions facing Working Group A. Will the revenues from a VAT substitute for some of the revenues now received from the income tax, allowing rates to be lowered somewhat? Or, alternatively, will the VAT completely replace the current income tax system, individual and corporate, combined?

Using a VAT to replace the income tax would provide an enormous amount of simplification. Individual income tax returns, except for the self-employed, would be completely eliminated. Business tax forms would be significantly simplified, and would require no information that is not now already collected in the normal course of business. However, the VAT would not, as is often argued, provide U.S. exports

with a competitive advantage. It is true that under a VAT imports are subject to tax and all tax that has been paid on goods for export is rebated, leaving them tax-free. But this just replicates the tax treatment of a "destination-based" consumption tax such as a retail sales tax, under which no tax is levied on goods consumed outside of the United States.

Dumping the income tax entirely would be unprecedented. Most countries adopted the VAT to replace inefficient turnover taxes rather than income tax revenues. All of the other countries that make heavy use of the VAT also have an income tax, which itself often collects substantial amounts of revenue. But, then again, most other developed countries have much higher tax to Gross Domestic Product (GDP) ratios than the United States. As an extreme example, although Sweden collects 7.6 percent of its GDP from a VAT, it also collects an additional 25 percent of GDP in personal and corporate income taxes at all levels of government; it collects a total of 56 percent of GDP for all taxes combined. Germany raises 5.9 percent of its GDP from a VAT and still raises 13 percent in income taxes and 38 percent overall. The United States, of course, collects no VAT revenues, but raises 14 percent of GDP in income taxes, and 30 percent of GDP overall.

Thus, although other countries that use the VAT use it in addition to, and not as a replacement for, income taxes, most other developed countries also need to raise a lot more revenue than does the United States. This suggests that the United States may be in the unique position of being able to replace the income tax entirely, and still stay within the range of VAT collections that has been proven viable in other countries. In 1993, federal personal tax receipts plus corporate income tax amounted to 10.1 percent of GDP. This proportion of GDP is higher than that collected by VATs in any other Organisation for Economic Co-operation and Development member country -- but not by much. Denmark raises 9.7 percent of its GDP with a VAT, Finland 9.3 percent, Austria and Norway 8.7 percent each. Of the largest European countries, France raises 8.4 percent, Germany 5.9 percent, and the United Kingdom 6.2 percent.

Thus, it is only slightly out of the range of international experience to impose a VAT of sufficient size to replace the current U.S. income tax. Note, though, that a VAT that raises 10.1 percent of GDP would require a rate much higher than that, since the base for taxation is less than GDP itself. A comprehensive U.S. VAT, one that provided no special treatment for food, housing, or medical services, would need to be set at a rate of about 25 percent in order to completely replace the federal revenue from the individual and corporate income tax systems.

Replacing the income tax system with a VAT would indeed be a radical change in how taxes are collected, and promises an unprecedented rollback of government influence over economic decisions by both individuals and firms. (Imagine April 15 becoming just another ordinary day of the year!)

Exhilaration is the predominant emotion as Working Group A contemplates the abolition of the income tax. The members adjourn for two weeks, then reconvene to hear counterarguments.

Those presenting the case against the VAT pulled no punches. Replacing the income tax system with a uniform flat-rate VAT, they claimed, would endanger the revenue base of the country and threaten severe inflation. These serious dangers would arise because the reform would require a new system to enforce a VAT tax rate higher than any ever attempted before. It would also force a radical redistribution of the tax burden from the wealthiest Americans to the poorest Americans.

The first point needs little amplification. Giving up \$860 billion (1998 figure) of annual personal income tax revenues, with only promises from experts about the yield of a newly minted VAT, would leave Alan Greenspan, to name just one concerned person, understandably anxious. There is little doubt that a VAT could eventually be designed and administered to yield that much revenue, but there is much short-run uncertainty about the yield of a new tax begun at an unprecedented rate.

The second point does require some amplification. Recall that a uniform-rate VAT is essentially equivalent to a uniform-rate comprehensive retail sales tax. Compared to an income tax with a generous level of tax-free income, a VAT will increase the burden substantially on low-income households. Instead of paying little or nothing under an income tax, these households will awake on the first day of a VAT to see all prices 25 percent higher than the day before. Similarly, the tax burden on high-income households will fall if the graduated income tax is replaced by a flat-rate VAT.

This argument, though, can be exaggerated. Comparing, as many have done, the distribution of tax

burdens under an income tax and a VAT by looking at a snapshot of cross-sectional data on income and consumption will significantly overstate the regressivity of the consumption tax, because it will include people with temporarily low income who have maintained a level of consumption corresponding to their usual income. The apparent conclusion is that the burden of a consumption tax would greatly exceed that of an income tax for these people. Over a long period, however, consumption must match up more closely with income than a single year's snapshot suggests. Nevertheless, even a sophisticated lifetime tax incidence analysis, such as presented by Fullerton and Rogers (1993), suggests that replacing income taxes with a VAT would be a highly regressive tax change. They estimate, for example, that the poorest 2 percent of the population would, relative to the richest 2 percent, suffer a loss equal to 14 percent of income.

Fourteen percent of income. This figure quickly sobered up the members of Working Group A. Could they promise enough economic gains and simplification to justify such a large redistribution of tax liability? Fullerton and Rogers estimate the economic gains of such a switch -- not including any savings in administrative and compliance costs due to simplification -- to be 0.91 percent of income. These gains arise from the increased savings and investment that will occur, and the decrease in the misallocation of any given level of capital due to the elimination of varying effective tax rates on different kinds of investment. This figure is highly model-dependent, and is by no means a sure thing -- other studies have estimated the gain to be significantly higher -- but for current purposes it is a good benchmark. The savings in administrative and compliance costs might amount to another 0.6 percent of income.

Does a potential gain equal to about 1.5 percentage points of income justify a redistribution of the tax burden of this magnitude? No economic analysis can provide an answer to this question: It involves evaluating a policy that makes some people better off and others worse off. Even if aggregate income rises, such an evaluation inescapably involves value judgments which ultimately will be resolved by our political system.

There is another distributional issue lurking here. A switch from income taxation to consumption taxation redistributes the tax burden across generations, toward those at or near retirement who have already paid income tax on their earnings, and who expected to be relatively free from taxation from now on. A switch to a consumption tax will substantially increase their tax burden as they pay tax on the consumption during their later years. From a purely economic point of view, it is not unattractive to transfer the tax burden toward people for whom the bulk of their economic contribution has past -- there are no costly disincentives created thereby. This transfer does, however, raise another equity issue on which economic analysis is mute, and upon which the political system must decide.

After much deliberation, Working Group A decided that the income boost did not justify the redistributive change. The group next set out to discover if there were other packages that feature consumption taxation but have less serious redistributive consequences. They discovered that there are. But, more importantly, they discovered that the advantages of the VAT -- its simplicity and its neutrality toward saving and investment -- are inherently tied to the progressivity issue. So, addressing its regressivity inherently involves sacrificing its other perceived advantages.

One way to address the progressivity issue is to abandon tax rate uniformity and instead impose a zero, or lower than average, tax rate on those commodities that figure more heavily in the expenditure mix of poorer families, such as food, shelter, and health care. However, the European experience with VAT shows that multiple-rate VAT systems are significantly more expensive to administer. Furthermore, preferential taxation of necessities sharply reduces revenues. This in turn requires an even higher tax rate on other goods -- a highly inefficient way to increase the progressivity of a VAT, because a large fraction of total expenditures on these commodities is made by middle- and high-income families.

A second alternative is to enact a VAT while retaining a separate personal income tax but applying it only to incomes above a certain threshold. This could be accomplished by significantly increasing the standard deduction so that moderate-income households had no income-tax liabilities, and applying tax rates to higher incomes so that the combined VAT and income tax system retained significant progressivity. The Bush Administration put forward a similar plan in its last month in office. The problem with this plan is that it retains the income tax infrastructure for just those people for whom the tax is most complicated. Although it would greatly reduce the number of income tax returns that need be filed and processed, it does not reduce by much the number of complex returns that need to be filed.

A third alternative is to impose a uniform-rate VAT simultaneously with a large increase in income maintenance programs designed to offset the impact of the VAT on lower income people. Note that this plan does not address the redistribution toward the highest income groups. Under this approach, the administrative costs of expanding income maintenance progress need to be netted against the purported savings of substituting a VAT for an income tax. The Working Group decided not to pursue this option in order to avoid reopening the just-completed, and controversial, welfare reform issue.

PERSONAL CONSUMPTION TAX

The most intriguing alternative to the uniform-rate VAT is a scheme first introduced by Hall and Rabushka (1985). They devised a tax system that, while retaining the essential nature of a VAT, allows some degree of progressivity by shifting labor compensation out of the VAT, or business tax, base into a separate personal tax system. Unlike a VAT, the business tax base thus allows the deduction of payments to employees. The employees report this income and pay tax on it at the same rate faced by businesses. That change in itself would be counterproductive, because it would be equivalent to a VAT economically but would be more cumbersome administratively.

The advantage of taxing labor compensation with a personal tax is that some progressivity can be built into the system. In the original Hall-Rabushka plan, the progressivity is achieved solely by expanding personal exemption allowances for the adult taxpayers plus dependent exemption allowances. Once a personal tax on compensation exists, though, more progressivity can be introduced. Bradford (1986) discusses a plan (known as the "X-tax") with rates rising from 15 to 25 to 35 percent, and no exemption allowances to be combined with a 35-percent tax on business income.

Although Bradford's X-tax looks more like the current system than a VAT does, there are still radical differences. First of all, the base of the personal tax includes only labor compensation; all income from investment -- including net interest receipts, dividends, rents, and royalties -- would be exempt from personal taxation. The business tax also differs substantially from the current corporate income tax. First, all businesses, and not just corporations, would have to pay this tax. Second, the tax base is very different: Capital expenditures are deducted when made, rather than capitalized; purchases and sales are accounted for on a cash, rather than an accrual basis; interest payments (and other financial outflows) are not deductible; and interest receipts (and financial inflows) are subject to tax.

The Hall-Rabushka flat tax and the Bradford X-tax expose the essential economic equivalence, leaving aside administrative and transitional issues, between a tax on consumption like a VAT and a tax on labor income -- both exempt the normal return to capital. This economic equivalence does not, though, translate into a political equivalence. Although Americans have become accustomed to state and local retail sales tax levies at modest levels, they are not accustomed to income taxes that completely exempt interest, dividends, rental income, and capital gains from taxation. Nor, in the opinion of Clinton's political advisors, could Americans accept such a tax, thus ending discussion of the VAT-like flat tax.

Working Group B: Reforming the Income Tax (Again)

With Working Group A abandoned, attention shifted to Working Group B, whose charge was to formulate a reform package within the framework of the current income tax system. The exhilaration of the initial meetings of Working Group A had not been unnoticed by the income tax group. Thus, Working Group B asked that Working Group A, before disbanding, prepare a memo outlining the essential elements of the VAT which made it so attractive. If those elements could be identified, the reasoning went, perhaps they could guide the income tax reform, and be at least partially achieved in that context. This request produced the following list, presented in no particular order.

- The tax base is consumption, rather than income. Because of this, there is no tax wedge on the rate of return to savings or investment. Since income -- and particularly capital income -- is difficult to measure, the consumption base is also cheaper to administer and less prone to mismeasurement, which is inequitable and inefficient.
- A single tax rate is applied. The flat rate facilitates collection of tax at the source rather than at the household level. The flat rate also eliminates incentives to shift taxable income from high- to low-rate entities and from one period to another.

- Tax liability under the VAT is not personalized. Family circumstances and characteristics such as number of dependents, state of residence, and propensity to make charitable contributions have no tax consequences. This feature of the tax, combined with the preceding feature, eliminates the need for household tax returns.

Identifying the essential elements of the VAT exposes the conflicts among them. The most critical conflict is that tax reforms that reduce the tax burden on either savings or investment appear to be inequitable.

Even in a pure life-cycle model, in which all individuals spend all their income over the course of a lifetime, and there are no bequests, a flat-rate income tax will be progressive if net savings is a luxury good, so that the ratio of lifetime savings to lifetime income increases with income. Add to this the fact that savings via bequests is clearly a luxury good means that tax relief tied to the volume of saving or its return will inevitably be regressive. Targeted savings incentive schemes such as the current IRA program -- under which the deductibility of contributions is limited to households under a certain income threshold -- can avoid the regressivity, but are inherently much less effective in increasing saving.

There is another aspect to the fairness issue -- taxes paid by corporations. In the public eye, corporations, especially big corporations, are equated with rich individuals. Therefore, any reduction in corporation income taxes is considered tantamount to a reduction in tax progressivity. Economists are more likely to look through the corporate entity and note that (1) the ownership of corporate shares is by no means concentrated among the wealthiest of Americans, although it is certainly skewed toward high-income households; and (2) the long-term burden of corporation income taxes is almost certainly spread from owners of corporate shares to all capital income receivers, and may be spread more generally to labor and consumers of corporate-made products. It is this common perception that is undoubtedly responsible for the corporate alternative minimum tax (AMT), which is designed to ensure that all corporations that report income to their shareholders also pay some tax, even if their regular taxable income is negative.

Thus, broad-based tax relief for savings and investment almost inevitably reduces progressivity and, in the case of corporate income tax reductions, reduces perceived progressivity. Yet abandoning the shift to a consumption basis for taxation means foregoing a significant fiscal impetus to increased saving and investment. Or does it?

Whether a consumption tax would significantly increase saving and/or domestic investment is in fact an unsettled proposition. The answer to this question first of all depends on how responsive saving and investment are to changes in their after-tax return. One reading of the evidence generated by the major tax changes of the 1980s is that saving and investment have proven to be less responsive to taxation than many economists previously believed (Slemrod 1992). Second, evidence presented in Gordon and Slemrod (1988) and Shoven (1991) shows that the combination of nominal interest deductibility, accelerated depreciation allowances, and arbitrage opportunities now existing implies that the aggregate average tax on capital income is already at or close to zero. If that is true, then the replacement of the income tax structure for a value-added tax may provide little or no incentive for new domestic investment, although the main beneficiaries would be those in the highest income group who have very large capital incomes. This replacement would undoubtedly eliminate inefficient differences in the rate of tax across assets and types of intermediation, but would not stimulate aggregate investment. The bottom line is that a big boost in saving and investment from broad-based reduction in their taxation is no sure thing.

The effectiveness of targeted savings incentive plans, such as IRAs and 401(k) plans, is even less likely. Although reputable economists argue to the contrary, the weight of the evidence is that -- because of a combination of inherent design flaws and a low interest elasticity of savings -- these plans do not raise saving in the short or medium term, although they may do so after being in place for several decades.

The foregoing arguments convinced members of Working Group B not to make tax reductions on saving or investment in physical capital the centerpiece of their reform proposal. They did not, though, rule out removing inefficient impediments to saving and investment. Nor did they rule out tax changes aimed at increasing investment in human capital, in concert with the 1992 campaign theme of "Putting People First."

They did, however, turn their attention back to the second and third essential elements of the VAT and to one of the themes from the 1996 State of the Union Address for addressing the tax system: Reduce government interference, via the tax system, in the financial affairs of households and businesses. The buzzword became "streamlining" the tax system, and reducing unnecessary impediments to the real work of America.

What follows is the proposal eventually produced by Working Group B.

The Proposal

A key underlying theme of this proposal is to simplify the tax system and thereby make it both less of a "hassle" and less important in economic decisions. These objectives can be met by reforming both the tax collection process and the structure of the tax law itself. The filing process itself is simplified by offering most taxpayers the option of "automatic tax payment." Under this system, the taxpayer would not need to file a tax return at all. Instead, the IRS, making use of information returns from employers as well as payers of interest and dividends, would prepare an electronic return and inform the taxpayer of any tax or refund due. The taxpayer would be obligated either to sign off on the pre-prepared return or make appropriate corrections.

The proposal also accelerates the introduction of "one-stop tax shopping," so that taxpayer inquiries regarding federal and state tax matters could be handled by a single representative at a single, accessible, phone number. The proposal also offers financial incentives to states that conform their tax base (both individual and corporate) closely to the federal tax base, and matching subsidies for state enforcement activities that result in increased federal tax revenues.

Finally, it is proposed that official analyses of all new tax initiatives include a "simplification impact statement" (SIS) that quantifies the incremental administrative and compliance costs of the proposal, and how the proposal could affect the accuracy of information conveyed to the IRS. This SIS will accompany the standard analyses of tax initiatives which estimate the revenue gain or loss, how the change in tax burden will be distributed across income groups, and the likely economic impact. The SIS is designed to institutionalize concern about the complexity of the tax system, and force the policy process to focus on this important but often ignored aspect of tax policy.

Some of the tax system's complexity arises because politicians often try to minimize the readily apparent burden of taxation, the most apparent symbol of which is tax rates. One result of the effort to raise revenue without higher explicit rates is the phaseout of the benefit of itemized deductions and personal exemption allowances. Those taxpayers in the phaseout range face a marginal tax rate which is higher than the explicit tax rates in the statutes. The number of explicit tax rates has grown from two in 1988 to five.

This proposal returns the individual income tax to the 1988 structure of two rates -- of 14 percent and 35 percent. All tax "bubbles" caused by vanishing exemptions and deductions are eliminated. The basic rate is reduced from 15 to 14 percent and the fraction of households covered by the basic 14-percent rate is increased. By equating the (explicit and actual) top individual rate and corporate tax rate at 35 percent, tax incentives to alter the legal form of doing business are minimized. The two-rate structure also increases the transparency of the tax system; the Clinton Administration promises no (or at least fewer) "gimmicks" in the tax system.

The proposed structural reforms of the individual income tax system adhere to the theme of streamlining the tax system by eliminating unnecessary narrowing of the tax base. An administration that seriously considered replacing the income tax with the completely depersonalized VAT should, after all, have the courage to eliminate many of the bells and whistles of the current system. The deduction for state and local taxes is eliminated, to be replaced by a matching incremental subsidy paid directly to governments for education expenses alone; education is the category of subfederal expenditure producing the most substantial national benefits, which provides a compelling case for federal subsidy.

Ending the deductibility eliminates the current pattern of subsidizing education (and other state and local expenditures) predominantly for high-income communities. It will also contribute to tax simplicity by significantly reducing the fraction of taxpayers who find it in their interest to itemize deductions. The exclusion from the tax base of fringe benefits such as health and life insurance is sharply curtailed. Capital gains become fully subject to tax, although the basis becomes indexed for price increases after

January 1, 1998. The deduction for appreciated property also becomes the purchase price rather than the appreciated price. IRAs are eliminated, the limits on other saving plans reduced, and the deadline for contributions put at December 31 of the tax year, so as to facilitate the automatic return system.

The corporate tax aspects of the proposal also focus on streamlining the tax process. They feature the elimination of the corporate alternative minimum tax and the uniform capitalization rules. These are the two provisions of the Tax Reform Act of 1986 most often cited by corporate tax officers as adding unnecessarily to complexity, according to a recent survey of the compliance costs of taxation done by Slemrod and Blumenthal (1993).

- The AMT requires firms to compute a separate tax base, apply a 20-percent tax rate to it, and then pay the higher of this liability and their regular tax liability, with complicated rules about carryovers and carrybacks of liability. Because the AMT base was designed to minimize the chance of a zero or non-zero liability, it does not closely resemble economic income and thus introduces several capricious and inefficient incentives. The AMT is supposed to ensure fairness of tax burden, but in fact ensures only a crude and inappropriate version of fairness. It does, though, add significant planning and compliance complexity, adding as much as 16 percent to corporate compliance costs.
- The uniform capitalization rules require firms to amortize certain categories of overhead expense that had formerly been deductible at the time of expense. They provided a one-time revenue gain in 1987, but are a continuing source of complexity and arbitrariness in the tax system.

The tax treatment of foreign-source income, the third most-cited area of unnecessary complexity according to the survey, is also reformed with an eye to simplifying the process. Further, the United States pledges to initiate an international conference on the taxation of multinational enterprises, designed to alleviate the extraordinary costs imposed on such firms by overlapping tax jurisdictions and also to ensure that tax differences across jurisdictions are not a source of inefficient allocation of resources and tax avoidance. The preferential low tax rates on corporations with income below \$75,000 are eliminated. As with the alternative minimum tax, this is an inappropriate place to apply standards of fairness related to progressive taxes. Owners of such corporations whose own tax rate is in the 15-percent rather than 35-percent bracket have the option of converting to a Subchapter S corporation, and thus avoiding the corporation tax altogether.

Finally, the Administration proposal includes an investment tax credit. This credit, though, is only a distant relative of the investment tax credit that was part of the tax law for most years between 1962 and 1986. The new proposal calls for a credit for investment in people (CIP). The CIP applies to specified private expenditures on education and training, and is integrated with the newly proposed federal subsidy to state and local government expenditures on education that replaces the deduction for state and local income taxes. The CIP addresses the problem that firms often have no incentive to provide general training to mobile workers, especially for those in jobs paying close to minimum wage.

This set of proposals is modest compared to the large tax reduction of the 1981 act, which amounted to about 3 percent of GDP. It is also modest compared to the structural reforms contained in the Tax Reform Act of 1986. On the other hand, it is a more coherent approach to tax reform than the tax provisions in the 1993 Budget Act, which were designed to raise revenue within the strict distributional requirements embedded in President Clinton's campaign promises. Moreover, it is the most significant attempt heretofore to address directly the problem of complexity in the individual and corporate tax systems. Streamlining the tax system will directly reduce the annual compliance cost of more than \$50 billion and free up individual and business resources for productive investment rather than tax planning.

The proposal was released yesterday, and its fate in Congress is uncertain. Will it be the basis of a tax bill, or will it be dead on arrival? Conventional wisdom has it that a tax reform can succeed only if perceived winners outnumber losers by a seven-to-one margin. That is a tall order for a revenue-neutral tax bill which, except for the reduction in what economists call excess burden, can only reshuffle that burden among the population. The 1986 tax reform met this test by shifting tax collections from the individual to the corporate tax; it then conveniently failed to include the corporate tax increase in calculations of the gainers and losers from tax reform. The injunction against gimmicks rules out this ploy in the second Clinton Administration. Depending on the strength of the economy, and the shape of the deficit, it may be possible to couple tax reform with a tax cut. And tax reform sweetened by a tax cut

just may carry the day.

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