

Principles of Tax Reform

**Testimony
Joint Economic Committee
U.S. Congress
Washington, D.C.
November 5, 2003
by**

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Chairman Bennett and other distinguished members of the Committee, it is a pleasure to renew my long-standing association with the Joint Economic Committee. I have worked with the Committee for a quarter century on issues ranging from policies to promote long-term economic growth to the short-run economic outlook to improving the nation's economic statistics. I have greatly appreciated the Joint Economic Committee's focus on broader issues that frame specific legislation, and it is in that spirit that I testify today on the principles that should guide fundamental tax reform. In doing so, I will endeavor to summarize the latest academic thinking on this vital issue and apply it both to some general reform ideas (e.g. replacing the corporate and personal income taxes with some form of an integrated consumption tax) and to some specific reform ideas (e.g. expansion and reform of tax-deferred saving).

I. Introduction

Views of what constitutes the "best" tax system date almost from the dawn of political philosophy. The suggested ways to balance concerns with efficiency, equity and administrative simplicity and reliability have evolved considerably since Adam Smith enunciated his famous Four Canons of Taxation in *The Wealth of Nations* in 1776 (*see insert*). Before turning to that subject, let me emphasize the likely large payoff to a better tax system. Simply put, there is a tremendous opportunity to improve the federal system of corporate and personal income taxation in a manner that will both significantly improve economic

ADAM SMITH'S FOUR CANONS OF TAXATION

1. **Equality:** (Ability-to-pay) "...ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue (income) which they respectively enjoy under the protection of the state."
2. **Certainty:** "The tax which each individual is bound to pay ought to be certain, and not arbitrary. The time of payment, the manner of payment, the quantity to be paid, ought all to be clear and plain to the contributor, and to every other person."
3. **Convenience in payment:** "Every tax ought to be levied at the time, or in the manner, in which it is most likely to be convenient for the contributor to pay it."
4. **Economy in collection:** "Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible, over and above what it brings into the public treasury of the state."

performance and substantially reduce the compliance and administrative burden on America's families and firms. Estimates of the annual compliance burden range into the many billions of dollars, including over a billion hours devoted to that task. The cost in distortions of economic decisions such as how much and in what form households save, businesses invest and people work is enormous. The tax system is clearly too complex. Remarkably, the system of voluntary compliance yields a very high percentage of income tax liabilities actually due, especially when viewed relative to other countries. That speaks well of Americans' basic values. But there is episodic concern, for example in Treasury, that the system of voluntary compliance will be decreasingly effective over time and the nation will be driven to transactions taxes unless a simpler tax system replaces the current complex income tax system.

Before discussing alternative reforms and how they relate to various standards, a simple parable will distill much economic knowledge on the subject

of the economic cost of taxation. Suppose the government takes a dollar away from taxpayers to finance spending. To collect that dollar, the government has to distort the allocation of resources. The tax will affect private decisions. Our income tax doubly or triply taxes some type of saving and thus distorts the incentive to consume versus save or, alternatively, to consume in the present versus the future, e.g. at retirement. Both income and payroll taxes distort the incentive to work, etc.

The severity of these distortions depends on two things: first, the size of the “tax wedge”. How high is the real effective marginal tax rate that drives a wedge between the before and after tax prices paid and received by economic agents, for example between the before-tax return to investment and the after-tax return to saving, between the wages paid by employers and those received by workers, and so on? Second, how sensitive or elastic is the activity to changes in tax rates? Through numerous studies, some activities are well known to be quite sensitive to tax rates, for example, the realization of capital gains and the labor supply of second earners in families, whereas others, for example tobacco consumption, are much less sensitive. The combination of the size of the wedge and the sensitivity of the activity to it determines the severity of the tax distortion.

Generally, the overall total burden that these tax distortions impose on the economy goes up with the *square* of marginal tax rates. Thus, doubling the tax rate quadruples the inefficiency or waste or harm done by the tax distortion. The marginal cost goes up proportionally with tax rates. *Thus, high marginal tax rates are very bad for the economy.* The cost to the economy of each additional general tax dollar is about \$1.30 or \$1.40. This immediately tells us that a key to the quality of the tax system – how badly it distorts the economy, hinders growth, misallocates resources – is the level of *effective* marginal tax rates. *The lower the effective marginal tax rates, the smaller the distortion of private decisions.*

Now the tax dollar (which costs the economy \$1.30 or more) is put into a bucket. Some of it leaks out in overhead, waste, and so on. In a well-managed program, the government may spend \$.80 or \$.90 of that dollar on achieving its goals. Inefficient programs would be much lower, \$.30 or \$.40 on the dollar. Thus, another key to an efficient tax system is efficient spending that keeps the revenue needed to the minimum necessary spending.

It is important to note that the effective tax rates on private activity can be quite different from statutory rates because they interact with the tax base and can cascade across several taxes. For example, state and local income taxes and payroll taxes add to the distortions caused by the federal income tax. Clearly, the broader the tax base, the lower the rates to raise any given amount of revenue. Hence, broad bases and low rates are hallmarks of a good tax system.

II. Five Big-Picture Tests for Tax Reform

I have five big-picture standards or tests that I apply to tax reform proposals.

1. Will tax reform improve the performance of the economy?

By far the most important aspect of economic performance is the rate of economic growth because that growth determines future living standards. The most important way the tax system affects economic growth is through the rate of saving, investment, entrepreneurship and human capital investment.

2. Will tax reform affect the size of government?

Tax reforms that more closely tie the payment of taxes to expenditures will promote a more effective and efficient government. A new tax – a broad-based consumption tax, like a European VAT, for example – may just be piled on top of the existing taxes and used to raise revenue to grow government. This is what

has happened in many European countries and is a major detriment to their economic performance.

3. Will a new tax structure affect federalism?

Tax reforms can affect the federal system in many ways. Some types of federal tax reforms would implement taxes heavily relied on by state and local government, e.g. retail sales taxes (or VAT). We should favor those that strengthen federalism and devolve authority and resources to state and local government and private institutions to the extent possible.

4. Will a new tax structure likely endure?

We have had 15 major tax reforms or fundamental tax reforms in the last quarter-century, more than one every Congress. We should be concerned that we might move to a better tax system only to undo it shortly thereafter. In 1986, the trade-off was lower rates for a broader base. That was slightly undone in 1990, and dramatically so in 1993, whereas in the past three years, rates have been reduced. A more stable tax system would reduce uncertainty and, in its own way, be less complex.

5. Over time, will tax reform contribute to a prosperous, stable democracy?

Are we likely to see a change in the ratio of taxpayers to people receiving income from government? We now have a much higher ratio of people who are net income recipients to people who are taxpayers than in any previous time in our history, reflecting not only transfers but the EITC and other features of the income tax itself. Fortunately, that number is still well under 50 percent. But as we move through time, as the retired population grows, the baby boom generation approaches retirement and then retires, the fraction of the population in any given year who are receiving more than they are paying will grow. We must deal with this both on the tax side (underground economy, chary of too many off the income tax rolls) and, especially, on the transfer payment side (the

EITC, entitlements programs) and do so soon, or we will get into a spiral of higher benefits, higher tax rates, a weaker economy, and ever-greater political conflict between taxpayers and transfer recipients. Just examine the plight of some large cities in the 1970s, or many European countries today.

III. Evaluating Tax Systems

With these big-picture issues in mind, we can ask in designing a tax system, what are the major decisions that need to be made? There are four interrelated decisions: the choices of tax base, tax rate(s), the unit of account and the time period of account (*see insert*). We outlined above why it is important to keep the rate(s) as low as possible to minimize the distortions to the economy. What about the tax base?

KEY DECISIONS FOR DESIGN OF TAX SYSTEM

1. Tax base(s): income, consumption, hybrid; people or transactions
2. Tax rate(s): flat, progressive, levels
3. Unit(s) of account: family, individual, transactions
4. Time period of account: transaction, annual, longer-horizon

A. The Tax Base

Most fundamental reforms are designed to redress the severe distortion of saving and capital formation caused by the current system of income taxation. Most other countries rely much more heavily on taxes on consumption – so-called indirect consumption taxes such as sales taxes and value-added taxes and income tax systems that exempt large amounts of saving from the tax base – thereby leaving most households' tax base as income minus all saving (i.e., only that part of income that is consumed). Most of their corporate taxes have various features that allow more rapid write-off of investment than does the U.S.

corporate tax; some have features by which they integrate the corporate and personal tax; others, such as Japan, have corporations that have much higher leverage and therefore finance a much larger fraction of investment through tax-advantaged debt.

The U.S. corporate and personal income taxes (and other taxes at both the federal and state level) tax some types of saving once, others twice, some three times, and in some instances even four times. To set concepts, *it is generally understood that a pure income tax would tax saving twice: first when it is earned as part of income and again when it earns a return in the form of interest or dividends.* An alternative way to think about this is that present consumption is taxed once while future consumption is taxed twice because the bulk of saving is done for the purpose of future consumption, for example, during retirement.

Now consider the separate corporate and personal income tax and a family putting their saving in corporate equities. The family first pays taxes on their own income, their consumption plus saving. That is tax one. They save some of that after-tax income in the form of corporate equities. But the corporation pays corporate taxes (on behalf of the family as a shareholder). That is a second tax. Then the family pays taxes again when it receives dividends or capital gains (in this case one has to net out inflation, deferral, the possibly lower tax rate, incomplete loss offset, and so on to determine the true effective tax rate). That is a third tax on the saving. If the family is fortunate enough to accumulate over its lifetime enough to leave a taxable estate, the saving may be taxed a fourth time.

Of course, there are numerous exceptions to this rule. For example, employer-provided pensions (401k) plans, IRAs, and so on are forms of tax deferral (not tax forgiveness) that eliminate one layer of the taxation of saving. But going through the entire complexity of the tax code, despite the recent

reforms which are a step in the right direction, still produces the overall conclusion that *saving and capital formation are taxed especially heavily in the United States*, relative to other uses of income and relative to our competitors.

There are numerous ways to simplify the tax system and remove the distortion between the present and the future, between consumption and saving of households, and among types of investments. That is, there are numerous ways to tax consumption in the economy. We can generally divide these into two approaches – direct and indirect. So-called indirect taxes include a national retail sales tax, various types of value-added taxes, and excise taxes. So-called direct taxes would tax households and firms on the part of income that was consumed. Those taxes are sometimes called consumed income taxes. It is important to examine the combination of the business-level tax and the personal-level tax to determine what the final tax base will be.

Economists use a concept called the circular flow of income and product to describe the economy. Business firms use capital and labor, to which they pay wages and interest or other forms of capital income, to produce products, which they sell to obtain revenues out of which the payments to labor and capital are made. One can look at the total value of the production of the firms or the total income received by households as two equivalent sides of the nation's accounts. Thus, households can be taxed at the personal level by taxing their total income, or various components of it such as wages, interest, dividends, and so on. Alternatively, households can be taxed by taxing firms on the capital and labor they employ, or on their output. The taxes thus collected would reduce the flow of payments back to households. In this sense, a tax at the business level should be thought of as a withholding tax on households. To repeat the old saying, corporations do not pay taxes, people do. Taxes collected at the business level are paid by shareholders, owners of capital in general, workers, or consumers.

Thus, a tax on output sold by firms is equivalent to an equal-rate tax on the wage income and capital income paid by the firm from the sales of the output. Alternatively, households could be taxed when they use the income they receive from the firms to purchase goods and services or to save, the two broad uses that are made of income. Alternatively, because saving equals investment (ignoring the complexities of the international economy for the moment), income can also be taxed by taxing consumption plus investment in the economy.

Turning from taxing output or income to taxing consumption, the government can do so in a variety of ways (*see insert*). The most obvious is taxing the purchase of goods through a retail sales tax or excise taxes. A second option is to tax income of households but allow them to deduct net saving, leaving a tax base of consumed income. An alternative is to tax wage income at the personal level but to tax capital income at the business level (a withholding tax on the capital income of the shareholders); to make the tax a consumption tax, we would allow immediate expensing (i.e., a business tax deduction for investment in the year made).

<u>ALTERNATIVE WAYS TO TAX INCOME AND CONSUMPTION</u>	
(1)	or $\text{Income} = \text{Consumption} + \text{Saving}$ $\text{Income} - \text{Saving} = \text{Consumption}$ (deductible saving method)
(2)	or, $\text{Income} = \text{Consumption} + \text{Investment}$ $\text{Labor Income} + \text{Capital Income} = \text{Consumption} + \text{Investment}$ $\text{Labor Income} + (\text{Capital Income} - \text{Investment}) = \text{Consumption}$ (business tax expensing method)
(3)	Excise, sales taxes

defined in two dimensions: among investments (atemporal neutrality) and between investment and consumption (intertemporal neutrality). Think of

intertemporal neutrality as a level playing field goalpost-to-goalpost and atemporal neutrality as level from sideline to sideline. Even a perfect income tax would only achieve atemporal neutrality, not the more important intertemporal neutrality. A pure consumption tax, however levied, would guarantee neutrality both with respect to investment versus consumption *and* among types of investment. The attempt to achieve neutrality among types of investment in an income tax is almost guaranteed to fail as problems such as inflation accounting, measuring true economic depreciation, and so on present huge hurdles to properly measuring real economic income. The most complex parts not only of the U.S. income tax but of any income tax concern capital income and international transactions.

The U.S. tax system favors investment in owner-occupied housing. To oversimplify, by not explicitly taxing the imputed income to owner-occupied housing (the rent an owner occupier could earn or implicitly pays to himself/herself), saving in the form of housing equity is tax-advantaged in a manner similar to IRAs and 401(k)s. Fundamental tax reform replacing the personal and corporate income tax with a consumed income tax would not only create a level playing field between consumption and saving, but also among all types of saving. So long as housing is afforded this type of tax treatment, an income tax is guaranteed to seriously misallocate resources.

The current tax system, as noted, is a hybrid with respect to the tax base. Some saving is taxed once, some twice, some three or four times. The last two decades of academic research have strongly reaffirmed the view that tax neutrality toward saving and investment should be a very high priority. To greatly oversimplify, even modest tax rates on saving produce tax wedges and distortions that are enormous when compounded over the relevant time span. While a 30% tax rate might reduce the return to saving from, say, 10% to 7% and that might seem modest in comparing this year to next year, over the decades of saving to finance retirement, removing the 30% tax wedge compounds into a

much larger 130% increase in the cumulative future value of the saving over 30 years. Since the corporate income tax and the personal income tax drive this tax wedge between the returns to an investment in the economy and the net of tax returns received by the savers supplying the capital, one of the primary conclusions of modern public finance economists is strong support for an integrated corporate and personal tax on consumption (on which more below). The current corporate and personal income taxes, through depreciation and interest deductions in the corporate tax and tax-deferred saving in the personal tax move part-way toward this ideal. The immense complexity of measuring and deducting true economic depreciation, real interest, reasons for saving, etc. create a tax system with widely different effective tax rates on alternative types of saving and investment.

It is sometimes argued that taxing consumption is unfair; income, the argument goes, is a better measure of ability to pay. Thomas Hobbes first made the case for taxing what is taken out of the economy (roughly measured by consumption) rather than contributed to it (approximated by income). Such philosophical arguments aside, modern economics recognizes that households smooth their consumption when income fluctuates and that most households have a longer time horizon and consume out of permanent or expected average income. Thus, consumption in any year may well be a better proxy for permanent income than is income in that year. Over a lifetime, a consumption tax will tax lifetime income (ignoring bequests), but do so in a manner that does not distort saving decisions.

Although there are several different approaches to consumption taxation, with very different attributes, it is important to stress their conceptual equivalence. Consumption equals income minus saving; a tax with an unlimited net saving deduction is a consumed income tax whether levied at flat or progressive rates. Consumption taxes can be levied directly as a retail sales tax on the purchases of goods *and* services. But consumption is also equal to

income less investment and therefore labor income plus capital income less investment. Hence, a tax such as the so-called flat tax of my Hoover colleagues Bob Hall and Alvin Rabushka, which taxes wages at the personal level and capital income less expensed investment at the business level, also winds up with consumption as the tax base.

I noted above the importance of low tax rates: the broader the base, the lower the rate or rates. Thus, a national retail sales tax on all consumption goods, including services, replacing the current corporate and personal income tax, would reduce the drag on saving, investment, entrepreneurship, and economic growth. It could be implemented in a manner that is far less intrusive and burdensome on taxpayers. It would, however, be a proportional tax on consumption. If greater progressivity is desired, a refundable tax credit, or exempting commodities consumed disproportionately by the poor, would be the two possible approaches. The latter is inefficient in the sense of exempting, for example, food for rich and poor alike. The former would require some cumbersome administrative apparatus and, as we have seen with the earned-income tax credit, open up opportunities for abuse. I believe each of these problems is surmountable. Also, although it would not completely eliminate the underground economy, this approach probably would get at more of the underground economy than any other.

The approach of allowing an unlimited saving deduction (a super IRA, the recent Treasury proposals would accomplish this for most households) in a system similar to the current income tax system is a progressive-rate consumed income tax. Indeed, one of the most interesting developments of the past two decades in tax policy, capital markets, personal finance and the economy has been the remarkable expansion of tax-deferred saving. Tax-deferred saving vehicles include individual retirement accounts (IRAs), private pensions including 401(k)s, certain life insurance products, and federal and state and local pensions. The Federal Reserve data indicate the assets in these vehicles have increased

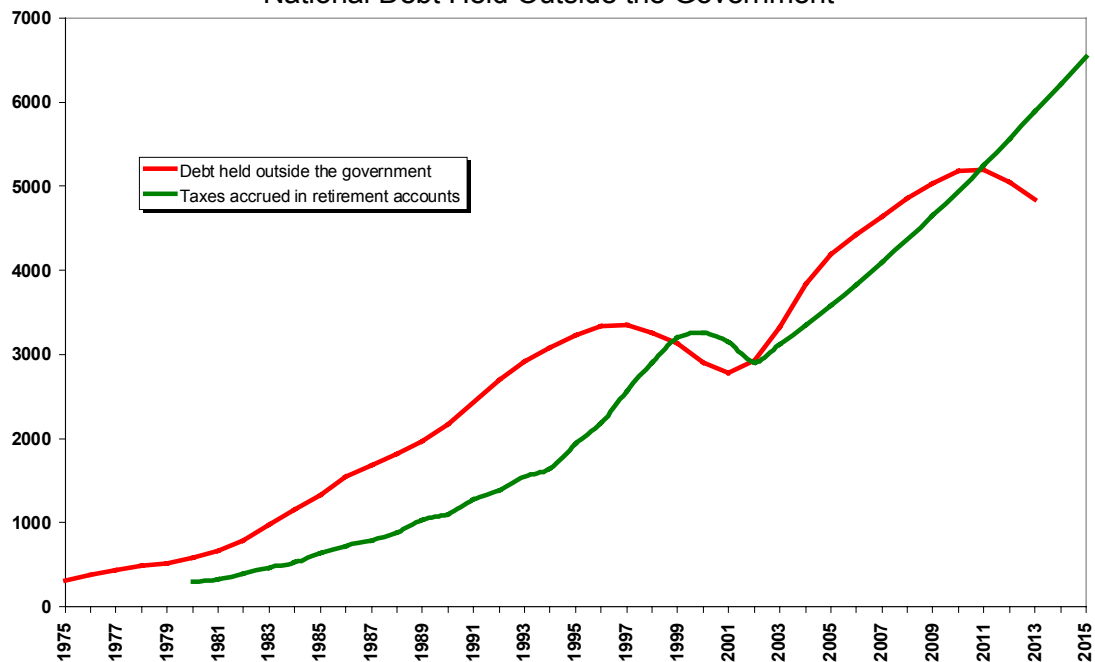
roughly tenfold in nominal dollars since 1981, when universal IRAs were introduced and 401(k)s launched, three times as fast as nominal GDP. They currently total well over \$11 trillion. Very rough estimates suggest \$400 billion per year is contributed and a similar amount withdrawn each year. The balances grow (or as in 2001 and 2002, shrink) with market returns (net of fees) on the various investments in the accounts, plus contributions less withdrawals.

Because the withdrawals from these balances will be taxed as ordinary income, the federal government has accrued what might be called a deferred-tax asset (DTA) on a hypothetical balance sheet. Just as the national debt requires future taxes to pay interest, the balances in tax-deferred accounts will yield future taxes. At current marginal tax rates (weighted by balances) of 28.7%, the DTA would exceed about \$3 trillion, about the size of the national debt held outside the government (the publicly held debt less holdings by the FED, *see chart*). If future lower pre-retirement tax rates more than offset real bracket creep and the rate fell to 21%, the DTA would still equal three-fourths of “outside” debt. The tax-deferred asset has accrued because the deductions on the contributions have already been taken and show up as historical revenue losses (future contributions will do so in the future), whereas the taxes on the withdrawals have yet to be paid. The government is a 20-30% minority partner in that balance on your last quarterly report and you have a deferred-tax liability.

To repeat, much traditional saving has historically been taxed twice – first when the saving was part of taxed income, again when returns such as interest and dividends were earned and nominal capital gains realized. The corporate, estate, and state and local income taxes raise effective tax rates still higher, although lower capital gains rates and deductible interest on debt work in the opposite direction (the recent reductions in dividend taxation and marginal rates reduce, at least temporarily, the net tax on saving). Tax-deferred saving vehicles, in contrast, allow contributions out of before-tax dollars, allow returns to buildup inside without current tax, and tax withdrawals later in life as ordinary

income. Roth IRAs accomplish “single taxation” the other way around: you put in after-tax dollars but pay no tax on withdrawals. Over time, contribution limits have been raised, and new vehicles added for college tuition and health costs. Treasury has innovative proposals to expand, simplify and consolidate these programs, discussed briefly below.

Accrued Deferred Taxes in Retirement Accounts vs.
National Debt Held Outside the Government



Sources: debt data for 1975 – 2002 are from OMB; for 2003 – 2013, CBO, August 2003; deferred tax data are from author’s calculations

Understanding the reach, efficacy and implications of these deferred-tax saving vehicles is important in its own right and as part of a broader set of economic issues such as assessing household and government balance sheets, fiscal history and future saving. Do the contributions represent largely new saving, or do they merely divert saving (old or new) from taxable to tax-deferred status? Do they really reduce the marginal tax rate on new saving, or do the contribution limits make the saving inframarginal? Are the early revenue losses made up later, or do they lose revenue permanently? Economists have been

deeply divided on these issues. I am in the more optimistic camp and believe they have been a powerful net wealth accumulator thus far.

The importance of answers to such questions becomes apparent with projections of the future evolution of the system of deferred-tax accounts. For example, if – and it’s a big if -- historical contribution retirement/withdrawal/return patterns continue, contributions and withdrawals will run in the tens of trillions of dollars (inflation-adjusted, undiscounted), and the balances grow more rapidly than income in coming decades. The growth of the withdrawals will add a growing elderly constituency for lower income taxes – at least on their withdrawals – to the predicted generational tension in the future political economy of budget policy.

The deferred-tax asset on the hypothetical federal government balance sheet grows with the balances in these accounts (*see chart*). From 1981-92, the growth in this already-accrued deferred tax asset was equal to 40-50% of the growth in the national debt; since then, a multiple of the more slowly growing debt. Forty years from now, it will be much larger. Thus, current “scoring” procedures are quite misleading in evaluating the revenue effects of expanding tax deferred saving and will bias policy evaluations against this potentially attractive reform.

In early 2003, Treasury proposed a major overhaul of tax-deferred saving, with a view to simplifying and expanding such saving. The saving proposal would create “back-loaded” retirement saving accounts (RSAs) into which contributions would not be deductible, but from which withdrawals would not be taxed. The proposed annual contribution limits of \$7500 per person are much larger than traditional IRA limits, and there would be no income limits on eligibility. Employer sponsored retirement saving vehicles such as 401(k)s would be simplified into new ERSAs. New lifetime savings accounts (LSAs) would be established with a \$7500 per person annual contribution ceiling from which

withdrawals could be made without penalty, greatly increasing flexibility. Traditional IRAs could be converted to RSAs; state college tuition plans, Coverdell education saving plans and Archer medical saving accounts could be converted to LSAs; 401(k)s, 403(b)s, and 457s could be converted to ERSAs. Future contributions would be limited or banned unless conversions were made to ERSAs and RSAs.

If enacted, these reforms would move the personal income tax much closer to a consumed income basis (relative to the current hybrid of a pure income and pure consumption tax), although the treatment of debt and the tax treatment of “old” saving cloud that issue. If enacted, anything approaching these reforms would affect the incentive to save in tax-deferred vehicles in several ways and therefore would likely also affect the budgetary effects of these vehicles. For example, the higher contribution limits and the abolition of the income eligibility restrictions could increase saving in these vehicles relative to the current ones. The new lifetime saving accounts might generate a sizeable flow of saving from those desiring greater flexibility, although some may come at the expense of longer-term deferred tax saving for retirement. The ERSAs, by virtue of simplicity, might encourage some small businesses not now offering 401(k)s to do so. A concern has also been expressed that some firms might not make them broadly available. Finally, it should be noted that the nondeductible contributions, nontaxable withdrawals nature of LSAs and RSAs, compared to the current tax-deductible contributions and taxable withdrawals treatment, would shift the timing of tax collections toward the present. There is also a concern that some of the saving historically induced by the prospect of the immediate tax deduction might not occur with the new system. In combination with permanent dividend relief, this expansion of “consumption tax” single taxation of saving would move the current tax system much closer to an ideal integrated business and personal consumed income tax.

A progressive consumed income tax has many admirable features and offers some flexibility in exemptions and deductions, but it would be desirable to broaden the base and lower the rates from the current system. If a so-called flat tax is not feasible, a broad-based consumed income tax with rates of, say, 10%, 20% and 30% at the personal level and 30% at the business level should eventually be feasible and would be a significant improvement over current law. A serious transition complexity issue is the need to track all preexisting assets.

The possibility of taxing capital that was previously accumulated but already taxed a second time when it is used to finance consumption, however, is a particularly important issue, especially for the elderly who, on balance, consume out of their assets. Also, because a huge part of the complexity of the tax system is in the treatment of capital income, I believe the alternative of taxing labor income at the personal level while taxing capital income minus investment (business cash flow) at the business level would be administratively simpler. My former CEA colleague, Princeton's David Bradford, has designed such a tax.

This approach to the tax base, with a flat rate, is the so-called flat tax. Although common usage calls it a flat-rate income tax, the flat tax taxes labor income at the personal level and capital income minus investment at the business level at the same proportional rate. Some of the simplicity is a result of the single rate, as various transactions just net out, such as a business deducting interest paid and a household paying taxes on interest received, because these would be at the same rate. Some progressivity is introduced into the flat tax with high personal exemptions that remove many households from the income tax rolls. Whereas the tax rate is constant, the ratio of taxes to income rises with income until it gradually approaches the flat rate, i.e., the flat rate tax is progressive, but obviously less so than current law (see below). For example, if the exemption level for a family of four were set at \$25,000, a family earning \$25,000 would have an average tax rate of zero; one earning \$50,000 would have an average tax rate of 10 percent if the flat rate is 20 percent (20 percent on

the \$50,000 minus the \$25,000 exemption); a family earning \$100,000 would have an average tax rate of 15 percent (20 percent on \$100,000 minus \$25,000); at extremely high earnings, the average tax rate gets very close to the marginal rate of 20 percent.

The value-added tax (VAT), which is in widespread use in other countries, (although, as mentioned above, it is often used as the way to finance much larger government spending), also usually taxes income minus investment, i.e., allows immediate deduction of full capital expenditures rather than gradual depreciation over a number of years. It does so for each good and service by taxing value added at each stage of production. Adding up across stages of production and across all goods and services leaves the tax base as aggregate income minus investment, or aggregate consumption in the economy. As a technical matter, among types of VATs, a subtraction method VAT with destination-principle border tax adjustments on balance would be better than the other types of VATs.

Each of these alternatives has its pluses and minuses. I can only begin to mention a few here, using the criteria above. If it could completely replace the corporate and personal income tax, a national retail sales tax probably in the end would be the simplest to administer and do the best job at getting at the underground economy. It might also tie taxes and spending more closely, or at least continuously. Some argue it would encroach on the states' revenue source. With no income tax, there would be no deductibility of state and local income taxes and no tax-exempt bonds (the same would be true in a pure flat tax with no deductions, although lower interest rates would partly offset this effect). A broad-based indirect consumption tax would be rebatable at the border under WTO rules and avoid the thorny international tax issues with which the House and Senate are now grappling. To the extent refundable credits and/or exemptions were necessary, tax rates would have to be higher and the advantages of a low-rate broad-based consumption tax would be diminished.

The same is true of a value-added tax, which, although it has a self-policing feature, is somewhat more complex than the retail sales tax but still relatively simple compared with income taxes. A VAT, however, unlike a retail sales tax, *may* loosen the tie between taxes and spending from the standpoint of the taxpayer consciously “feeling the pain” of taxation. In either case, a large distinction should be drawn between using a VAT to replace income taxes fully, or simply adding a new tax vehicle which could be used to expand the scope of government and reduce the rigor of the cost benefit tests that should be applied to spending decisions.

The flat-rate tax would be a major improvement over the existing income tax system on efficiency grounds, but again, to the extent that exemptions, deductions and such were left in place or crept back in over time, some of its advantages would be eroded. Of course, while progressive, it is less progressive than current law and also than the likely integrated corporate and personal consumed income tax with progressive rates. And, as with a broad-based sales tax or VAT, I would be concerned that small increases in the rate would raise lots of revenue and that, over time, we would evolve back toward a higher-rate system *unless spending was strictly controlled*.

B. Deductions, Credits

Every deduction in the income tax has its supporters – including the direct beneficiaries – and an apparent rationale. A deduction or credit alters the price of the activity in question to one minus the marginal tax rate or one minus the credit rate, respectively. In some cases the response may be sufficient to render a deduction or credit efficient in promoting the desirable behavior relative to the lost revenue. But the general interest in lower rates and a healthier economy overwhelms almost, perhaps all such arguments.

The two I would be most concerned about are the mortgage interest deduction and the charitable deduction. The United States does favor

investment in housing relative to corporate plant and equipment compared to most other countries. The equity in their home is the largest asset for a majority of American families, and home values reflect the value of the mortgage interest deduction. Perhaps a gradual transition could mitigate this effect. I believe charities strengthen a pluralistic democracy, and the charitable deduction may well be an efficient way to finance charities. We are all better off having thousands of charities doing their good deeds than to have them replaced by government agencies. Note that these deductions also vanish with a retail sales tax or VAT. Some of the same federalism issues arise if there is no deduction for state and local taxes and local government bonds lose their tax-free advantage. Finally, to strengthen or make more obvious the tie between taxation and government spending, some have suggested abolishing withholding, but this would add additional administrative and compliance costs.

C. Tax Rates

I noted above that the harm done by taxes distorting economic decisions goes up with the square of the rates. Thus, from the standpoint of economic efficiency, the lowest possible tax rates are desirable. But what about equity, fairness? Doesn't equity demand steeply progressive tax rates? The original academic answer to this question dates back about a century and assumed high, indeed prohibitive tax rates did not affect economic behavior. But it is obvious that, at some point, tax rates not only distort economic decisions but can reduce the tax base considerably, in the extreme enough to decrease revenue. (At current rates, the tax base changes about -0.3 times the percentage change in rates; while this is not supply-side nirvana, the supply-side response is large enough to merit consideration in tax policy.)

Thus, taxpayer responses to tax rates constrain the top marginal tax rate to be quite modest. Most academic studies, using plausible empirical estimates of labor supply and other responses, would cap the top rate at around one-third for all taxes at current spending levels. This insight from so-called optimal tax

theory provides an explicit method for combining and trading off the several desirable features of tax systems, e.g. efficiency and equity.

Back in the Eisenhower Administration, six out of every seven dollars of the much-smaller federal budget were spent on purchases of goods and services. Today, about half are on transfer payments. Thus, equity concerns no longer extensively focus on how to “fairly” apportion tax burdens, but also on how to efficiently finance transfer payments that preserve work incentives. Explicit transfers such as temporary assistance to needy families (TANF) are supplemented by large and rapidly growing transfers in the income tax, such as the EITC and other refundable credits, by in-kind programs such as Medicaid, and by social insurance programs, especially Social Security and Medicare. Shifting around the tax burden among the upper half of the income distribution won’t affect the after-tax and transfer distribution of income nearly as much as the size and structure of these transfers payments. Modern optimal tax theory strongly supports such negative taxes, but again at a modest level, generally totaling roughly one-third of average income.

It should be noted that the current tax system is extremely progressive (see *chart*). The top half of the income distribution pays over 95% of income taxes; the top 1% pays over 37%. The bottom half of the income distribution pays almost no income taxes (see inserts).

Summary of Federal Individual Income Tax Data, 2000

	Number of Returns	AGI	Income Taxes Paid	Group's share of Total AGI	Group's Share of Income Taxes	Income Split Point	Average Tax Rate
	0	(\$000,000)	\$(000,000)				
All Taxpayers	128,227	6,423,977	980,521	100.00%	100.00%	-	15.30%
Top 1%	1,282	1,336,773	366,929	20.80%	37.40%	above \$313,469	27.40%
Top 5%	6,411	2,267,403	553,670	35.30%	56.50%	above \$128,336	24.40%
Top 10%	12,822	2,955,386	660,150	46.00%	67.30%	above \$92,114	22.30%
Top 25%	32,057	4,313,786	823,706	67.20%	84.00%	above \$55,225	19.10%
Top 50%	64,114	5,589,755	942,179	87.00%	96.10%	above \$27,682	16.90%
Bottom 50%	64,114	834,222	38,342	13.00%	3.90%	below \$27,682	4.60%

Source: taxfoundation.org

Total Income Tax Share (percentage of federal income tax collections paid by each group)

	Total	Top 1%	Top 5%	Top 10%	Top 25%	Top 50%
1980	100.00%	19.05%	36.84%	49.28%	73.02%	92.95%
1981	100.00%	17.58%	35.06%	47.96%	72.29%	92.55%
1982	100.00%	19.03%	36.13%	48.59%	72.50%	92.65%
1983	100.00%	20.32%	37.26%	49.71%	73.10%	92.83%
1984	100.00%	21.12%	37.98%	50.56%	73.49%	92.65%
1985	100.00%	21.81%	38.78%	51.46%	74.06%	92.83%
1986	100.00%	25.75%	42.57%	54.69%	76.02%	93.54%
1987	100.00%	24.81%	43.26%	55.61%	76.92%	93.93%
1988	100.00%	27.58%	45.62%	57.28%	77.84%	94.28%
1989	100.00%	25.24%	43.94%	55.78%	77.22%	94.17%
1990	100.00%	25.13%	43.64%	55.36%	77.02%	94.19%
1991	100.00%	24.82%	43.38%	55.82%	77.29%	94.52%
1992	100.00%	27.54%	45.88%	58.01%	78.48%	94.94%
1993	100.00%	29.01%	47.36%	59.24%	79.27%	95.19%
1994	100.00%	28.86%	47.52%	59.45%	79.55%	95.23%
1995	100.00%	30.26%	48.91%	60.75%	80.36%	95.39%
1996	100.00%	32.31%	50.97%	62.51%	81.32%	95.68%
1997	100.00%	33.17%	51.87%	63.20%	81.67%	95.72%
1998	100.00%	34.75%	53.84%	65.04%	82.69%	95.79%
1999	100.00%	36.18%	55.45%	66.45%	83.54%	96.00%
2000	100.00%	37.42%	56.47%	67.33%	84.01%	96.09%

Source: taxfoundation.org

A few observations on equity or progressivity are worth noting. First, while Social Security payroll taxes are a proportional tax on wages (up to the cap for OASDI, on all wages for HI), and including payroll taxes would render the overall tax system less progressive, payroll tax revenues are dedicated to financing current and future Social Security benefits. Social Security benefits are quite progressive; hence, so is the Social Security system. In any event, in analyzing the allocation of tax burdens to finance general spending or non-Social Security transfer payments, earmarked payroll tax revenues are not directly part of the story.

Second, moving to an integrated personal and corporate consumption tax might require slightly higher rates than if saving were (doubly or triply) taxed. Since in the U.S., the saving rate is low (partly because of the tax system), this effect would be small. Further, most reform proposals would further broaden the tax base by eliminating many deductions and other credits, thereby enabling rate reduction.

Third, annual distributions of tax burdens and of income can be quite misleading. There is a lot of income mobility over time. Also, there is a natural life-cycle earnings profile that leads to concentration of annual income and saving (wealth) by age. Thus, even if everyone had the same lifetime income, a snapshot at any point in time would reveal a quite unequal annual income distribution, as workers in their 40s and early 50s would be “rich”, retirees “poor”, younger workers “middle-income”, even though they were all identical. To be sure, there are many other factors affecting income inequality.

Fourth, there are two other dimensions of equity besides current or lifetime income or consumption: horizontal equity and intergenerational equity. Horizontal equity refers to the equal treatment of similarly situated individuals. While this itself has several dimensions, one very important dimension is equal treatment of taxpayers with similar average, but very different annual, incomes. Consider twin sisters, one a high school principal, one a real estate broker, who

each average \$60,000 a year. One (the principal) makes \$60,000 every year; her sister makes \$30,000 and \$90,000 in alternate years. Thus, an annual tax with progressive rates with no income-averaging provisions (as those that were removed in the 1986 tax reform) would tax the fluctuating income more heavily.

Finally, while it is beyond the scope of the testimony, the incidence of taxes across generations is closely tied to public debt and intergenerational transfers such as Social Security. Public debt implies future tax payments to finance interest (and/or repay principal). Pay-as-you-go financed Social Security benefits transfers resources from current younger taxpayers to current retirees. Both public debt and intergenerational transfers affect saving and capital accumulation as do taxes on saving such as the personal and corporate income taxes. Thus, the choice of tax base is closely related to public debt and Social Security policy.

D. The Unit and Time Period of Account

The U.S. tax system relies on a modified family basis as the unit of account. Most families file “married, filing jointly”. There are numerous social, economic and legal (community property states) reasons for the family as the basis of account. Some tax systems, for example in Scandinavia, rely more on the individual filing separately and allocating capital income between spouses. The U.S. Social Security system collects taxes on an individual basis, but pays benefits on a modified family basis. I support the family as the basis for the personal tax, but with progressive rates two additional problems emerge. First, family income fluctuates considerably in response to temporary movements in and out of the labor force, for example, due to childbirth and rearing. This creates the horizontal equity problem mentioned above. Further, taxing based on pooled family income places very high marginal tax rates on the first dollar earned by second earners in families, where labor supply may be much more

responsive to tax rates than primary earners. Perhaps the best way to balance all these concerns is to make sure the tax rates are low.

In discussing horizontal equity, I introduced income averaging over time. A Nobel laureate economist, William Vickery, was so concerned about the efficiency and equity of an annual income tax that he proposed cumulative lifetime averaging of income for tax purposes. While a theoretical possibility, the fact that income averaging over a four-year period was eliminated as too complex in the 1986 tax reform calibrates how impractical it would be to average over very long periods. As I pointed out two decades ago, there is a clear relationship, interconnection, among the time period and the rates, base and unit of account. To take this most important relationship for our purposes here, most households (perhaps three-quarters) consume out of a longer-term average or permanent income. If income is temporarily high or low, they don't adjust their consumption proportionally. Thus, an annual tax on consumption provides some indirect averaging. Indeed, for most households, consumption would better measure permanent income than would current income. Finally, lifetime income is consumed over the lifetime (other than bequests), so an annual consumption tax approximates a lifetime income tax (again, other than bequests).

E. Automatic Stabilizers

There is one feature of the choices of tax base and rates that used to be heavily emphasized as a feature of the tax system: automatic stabilizers. These are tax (or spending) features that tend to stabilize private spending and hence the economy when income fluctuates. In a boom, people are driven into higher tax brackets; the opposite in a bust. Hence, after-tax disposable income is stabilized by progressive rates. While modern macroeconomists would consider the automatic stabilizers less effective than in old-fashioned Keynesian theory, which had consumption a function of short-run disposable income, nonetheless these properties are worth considering as well as traditional efficiency and equity concerns in the design of fundamental tax reform. Two additional points on the

automatic stabilizers are important. First, as the recent boom/bust cycle demonstrated forcefully at the state as well as federal level, the political budgeting process can be very volatile over the cycle. In my own state of California, which was the epicenter of the Internet boom and which has a very progressive income tax that taxes capital gains as ordinary income, the extra revenue from income growth, bracket creep, stock options and capital gains was not only immediately spent, but built into the spending base as if the economy would grow rapidly, and the stock market bubble continue, forever. With the bursting of the bubble, revenue collapsed. With hindsight, perhaps a more stable revenue source might prevent such wild swings. Indeed, certainty of revenue was one of Adam Smith's Four Canons of Taxation.

Second, however, this raises an interesting dilemma. In some sense the government should have broader concerns than just its own revenue. It might look to cushioning the fluctuations in private after-tax incomes, not just its revenue. To play this "insurance" role to households and firms, the government must accept these fluctuations in its revenue.

IV. Conclusion

The theory and empirical studies developed in recent decades by academic public finance experts, often called optimal tax theory, strongly endorses an (explicitly or implicitly) integrated business and personal tax which taxes broad consumption at low rates and includes transfers (negative taxes). As discussed above, there are several approaches to implementing such a system. What is likely to be gained by moving to one of these tax systems? Will it be worth the substantial political capital and transition costs to various families, firms, industries, and economic disruption that accompany any major tax change? The answer, in my opinion, is that the gains are *potentially* quite large. In this year's Presidential address to the American Economic Association, Nobel Laureate Robert Lucas of the University of Chicago reviews the literature and estimates long-run gains in consumption of 7.5-15% from replacing the current

corporate and personal income taxes with a broad-based, direct or indirect tax on consumption or consumed income. This occurs because the increased saving and capital formation increase wages and future income. These are large potential gains, on the order of a decade's worth of per capita consumption growth. It is hard to find another policy reform with that large a potential payoff. In this regard, the recent rate reductions and dividend and estate tax relief are steps in the right direction. If a fundamental overhaul of the tax code is not possible in the near future, further piecemeal reforms consistent with the desirable fundamental tax reform, such as expansion of tax-deferred saving, should be undertaken, with due regard to the long-run fiscal outlook.