

Economic Report of the President

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Tax Policy for a Growing Economy

The income tax has been the single largest revenue source for the Federal Government ever since World War II. Today it touches nearly every aspect of our lives. The income tax also fosters economic inefficiency, and its complexity leads to staggering compliance costs. Past efforts at partial reform of the income tax have not succeeded in reducing its complexity, removing its distortions of economic incentives, or making it more fair. Some might think that significant obstacles block the way to making great progress toward achieving these goals, but in fact such reform can be accomplished within the basic framework of the existing tax system.

In 2001 the Internal Revenue Service spent \$8.9 billion on processing, enforcement, and information systems, but this direct cost of administering the income tax is just a small fraction of its total cost. It has been estimated that individual taxpayers in the aggregate spend up to 3 billion hours each year to comply with the tax system—about 27 hours per taxpayer. The present tax code, with its myriad exclusions, exemptions, adjustments, deductions, and credits has grown into a labyrinth of complexity. In tax year 2000 nearly 72 million taxpayers (56 percent of all taxpayers) used paid tax preparers to complete their tax forms. Many taxpayers purchase tax-help books and computer software. Compliance costs are also onerous for business taxpayers, especially small businesses, and the typical Fortune 500 company spends almost \$4 million a year on tax matters.

The current tax system also causes households and businesses to rearrange their affairs in a number of ways that make poor use of economic resources, leading to substantial economic waste and, ultimately, reducing real incomes. The system affects a number of important economic decisions, such as how much to save and invest, how much risk to take, how much home mortgage debt to carry, how much in tax-exempt bonds to hold, when to realize capital gains, whether to hold assets that produce dividends or capital gains or interest, how much labor to supply and how much to hire, whether to organize business operations in corporate or noncorporate form, and to what extent to comply with the tax system. Perhaps one of the more salient distortions in the income tax today is that caused by the “double tax” on corporate income. As discussed extensively later in this chapter, this double taxation occurs when income distributed to shareholders as dividends or realized as capital gains is subject to individual tax after already being taxed at the corporate level. Double taxation causes too little capital to be allocated

to the corporate sector and a disproportionate share of capital to be allocated to other sectors of the economy. For a discussion of the President's recent proposal to eliminate the double tax on corporate income see Chapter 1.

These distortions and others lower saving rates and inhibit investment, capital accumulation, risk taking, and innovation, thereby lowering the growth potential of the economy, real incomes, and consumption. It has been estimated, for example, that elimination of the double tax on corporate income alone could increase economic well-being by as much as \$52 billion each year forever. Tax preferences provided through the array of exclusions, exemptions, adjustments, deductions, and credits represent policy decisions to exclude some income from the tax base, but this poses a tradeoff: a higher overall tax rate is then required to raise a given amount of revenue, and this distorts household and business decisions and imposes a corresponding burden on the economy. Reduction or removal of many of these distortions, through broadening the tax base and lowering tax rates, would, by one estimate, increase accumulated capital by 10 to 15 percent and real GDP by 2 to 6 percent. The economic gains from fundamental reform of the tax system could lead to substantial increases in economic well-being for all Americans.

The major objectives of tax reform are to reduce complexity, improve economic incentives, and address fairness. The central theme that brings these objectives together is that household and business decisions should depend on the tax code as little as possible. Taxing all income, but taxing it only once, is a key ingredient of many reform plans. This would involve broadening the tax base while lowering tax rates. Some efforts have also focused on a shift from taxing income to taxing consumption or consumed income.

A possible argument against reform is the suggestion that the current tax system instead needs to be “ripped out by its roots” and completely replaced. Arguments for such wholesale reform certainly have merit. This chapter, however, illustrates ways in which the current system could be modified to improve incentives and boost real incomes.

An important goal of any tax reform proposal is to reduce complexity. In the current tax system, much of the complexity and thus much of the compliance burden result from the numerous tax preferences, differential taxation, and the taxation of capital income. Aspects of the current system often involve complicated phase-ins and phaseouts designed to target tax benefits to certain groups of individuals or businesses. Replacing these targeted tax preferences with broad exclusions or lower tax rates would reduce this complexity. Differential taxation, or the taxation of different types of income at different rates—such as the double tax on corporate income and the exclusion for many employer-provided fringe benefits—creates incentives for taxpayers to rearrange their affairs to realize income in ways that are taxed more lightly. The use of tax shelters and arrangements that allow taxpayers to defer their tax liability is, to a large extent, the result

of these kinds of differentials. Reducing differential taxation would reduce complexity, reduce the incentives for tax shelters, and improve other economic incentives. Finally, research suggests that compliance costs are substantially higher for taxpayers with significant amounts of financial and business income. Defining such income and allocating it to individual taxpayers involves substantial recordkeeping. Many reform proposals would both reduce the tax on certain types of capital income, to promote saving and investment, and simplify the taxation of such income.

Some opponents of reform argue that taxing consumption rather than income would necessarily place a relatively heavier tax burden on lower income taxpayers. Conventional distributional analysis typically considers a snapshot of taxpayers' economic well-being at a particular point in time. Research has shown that, when a longer view is taken, differences in well-being, whether measured by income or by consumption, tend to be not as great, because of the fluidity of household incomes over time. Also, analyses of the distributional effects of moving to a tax based on consumption rather than income often do not recognize that a substantial portion of capital income, which is earned primarily by higher income taxpayers, is taxed under both income and consumption tax principles. The distributional effect of moving to a consumption tax looks considerably more progressive when the taxation of a substantial portion of capital income under a consumption tax is taken into account. Indeed, both an income tax and a consumption tax levy tax on the extraordinary (or what economists call supernormal or inframarginal) returns to capital.

This chapter revisits these issues, focusing particularly on ways in which the influence of taxes on key economic decisions could be diminished within the framework of the current tax system. First, the key objectives of reducing complexity, improving economic incentives, and achieving fairness are laid out in greater detail. The broad principles that underlie the two main approaches to taxation, that based on income and that based on consumption, are then described. These principles focus on how to raise enough revenue to fund a given level of government services in a way that has the least effect on economic decisions. Next, a framework is outlined against which the current, hybrid tax system can be compared and contrasted. Then two issues important to evaluating the distributional effects of moving to a consumption tax—the fluidity of taxpayer incomes and the taxation of capital income under a consumption tax—are discussed. This is followed by a discussion of how the current tax system taxes neither wholly income nor wholly consumption, highlighting the ways in which the current system departs from these broad principles. Finally, the chapter considers some of the major decisions and tradeoffs involved in proposed changes to the tax system. Modest structural changes are outlined that would move the current tax system toward either an income- or a consumption-based system, improve economic incentives, and reduce complexity.

Objectives of Tax Reform

At the outset, some overriding and fundamental objectives for tax reform can be identified: simplicity, fairness, and the promotion of long-term economic growth through improvements in incentives. These objectives are very much interrelated. Complexity, for example, can undermine one view of fairness if, despite the progressive tax rate schedule and targeted tax preferences, taxpayers perceive that higher income taxpayers pay less tax than they should, through tax avoidance and tax sheltering. Similarly, complexity from the phase-in and phaseout of targeted tax preferences can distort economic decisions, and thus impede long-term growth, by imposing a high effective tax rate on certain taxpayer decisions. But sometimes these objectives come in conflict. For example, addressing fairness through targeted tax preferences may distort economic decisions and undermine long-term growth through differential taxation and a higher overall tax rate.

Simplicity: Freeing up Resources for Productive Use

The current tax system is often viewed as difficult to understand, and the resulting billions of hours and billions of dollars devoted to tax administration and compliance are a drag on the economy. As mentioned above, taxpayers spend as much as 3 billion hours a year on Federal tax matters, and compliance costs associated with the Federal income tax equal about 10 percent of revenue, or about \$135 billion in 2001. The numerous tax preferences and the interactions among them, together with differential taxation, give rise to much of the complexity in the current tax system. The taxation of capital income and the complex rules governing depreciation also result in considerable complexity for both households and businesses. The rules used to define business receipts and deductions require recordkeeping and complex calculations, sometimes over many years. Self-employed taxpayers spend an average of 60 hours a year on such tax matters. Studies consistently find that compliance costs are most onerous for smaller businesses. Taxpayers with capital income, such as capital gains, dividends, interest, and rental income, also tend to have high compliance costs.

Compliance costs can be high even for individuals who receive most of their income as wages. The number of tax preferences has risen, often involving multiple definitions, and preferences often give rise to complicated interactions between provisions. For example, the tax code currently defines a “child” in at least five different ways: one way for purposes of qualifying for the child tax credit, another to qualify for the child and dependent care tax credit, another to determine head of household filing status, another for the Earned Income Tax Credit (EITC), and another for the exemption for dependents. Taxpayers with children may need to understand which

definition applies to some or all of these provisions when filling out their tax returns. Multiple definitions also encumber the provisions of the tax code relating to education expenses (such as the Lifetime Learning credit, the Hope credit, the education deduction, Coverdell Savings Accounts, and college savings and prepaid tuition plans), household maintenance tests, and earnings tests. An increasing number of taxpayers are also required to comply with two parallel tax systems: the regular tax and the alternative minimum tax (Box 5-1).

A major source of complexity in the current income tax is its attempt to target tax benefits to meet a variety of social goals. Integration of social goals into the tax system takes the form of altering the definition of ability to pay across a wide set of taxpayer characteristics. In this respect, defining a child five or more different ways is important if it is desirable to vary tax preferences along these dimensions. However, it comes with considerable compliance and economic costs. What is often not appreciated is the extent to which the targeting of these tax preferences subjects taxpayers with the same income to different effective tax rates (Box 5-2). Elimination and consolidation of tax preferences would help simplify the tax system and improve economic incentives.

Fairness: Relating Taxes to Ability to Pay and to Economic Well-Being

The income tax system should relate a taxpayer's tax liability to his or her ability to pay and to his or her economic well-being. This is the rationale behind the current progressive rate structure, whereby tax rates rise with annual income, as well as behind many of the existing tax preferences. However, the link to ability to pay begins to weaken when taxpayers with the same level of income pay different amounts of tax, because of differences in eligibility for some tax preferences, or have different opportunities to avoid paying taxes. Taxpayers fortunate enough to receive good tax advice might, for example, learn of opportunities to shelter income from tax legally; this can erode confidence in the tax system. Faith in the fairness of the tax system can also be undermined when compliant taxpayers see others evading substantial amounts of tax.

How ability to pay is measured is also crucial to perceptions of fairness. The current income tax system uses annual income as a yardstick for ability to pay. Some have argued, however, that what a taxpayer actually consumes better reflects his or her economic well-being than how much income that taxpayer earns. Consumption patterns are determined by incomes over a time horizon that extends well beyond 1 year. A household's past income and, in particular, its expectations about future income are critical in determining how much the household spends in any given year. Researchers have

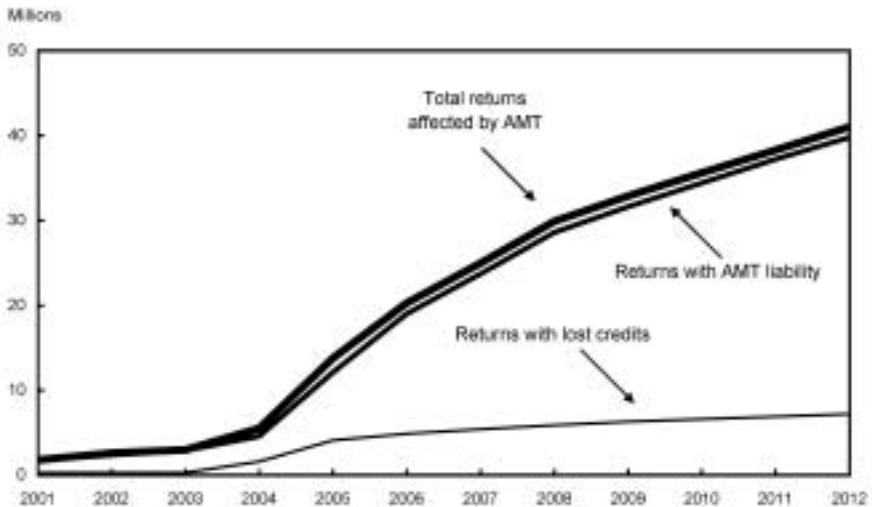
Box 5-1. The Toll of Two Taxes: Compliance with the Regular and the Alternative Minimum Tax

An increasing number of taxpayers are required to comply with two parallel income tax systems: the regular tax and the alternative minimum tax (AMT). Although the AMT itself is not very complicated, taxpayers may be surprised to learn that some of the deductions and credits they claim under the regular tax, and even the benefit of the lower rate brackets, are substantially reduced if they become subject to the AMT. Indeed, these factors are exactly what push many taxpayers onto the AMT.

The AMT is, in many respects, an example of a government policy that has had unintended consequences. The minimum tax, the precursor to today's AMT, was enacted in 1969 following a report that 155 very high income individuals had paid no tax. Although its original intent was to ensure that a relatively few high-income individuals pay tax, it is projected that some 40 million taxpayers will pay the AMT by 2012, assuming that the tax reductions enacted in 2001 are permanently extended (Chart 5-1). Moreover, more than two-thirds of married taxpayers with two or more children and 97 percent of taxpayers with incomes between \$75,000 and \$100,000 will face the AMT by 2010. Some estimates indicate that by 2008 the AMT will raise more revenue than the regular tax.

Chart 5-1 Projection of Returns Affected by the Alternative Minimum Tax

An increasing number of taxpayers will be subject to the alternative minimum tax during the next decade



Note: Even if a taxpayer has no AMT liability, the AMT can limit the amount of certain personal credits the taxpayer can claim. Consequently, the number of taxpayers affected by the AMT exceeds the number that have AMT liability.

Sources: Leonard E. Burman, William G. Gale, Jeffrey Rohaly, and Benjamin H. Harris, "The Individual AMT: Problems and Potential Solutions," Tax Policy Center, Discussion Paper No. 5, September 2002.

generally concluded that incomes over longer time horizons are a better indicator of differences in economic well-being than income in any one year.

Annual incomes can vary from lifetime incomes for many reasons. One is that income tends to vary in a predictable way over a person's working life. Most individuals' earnings are relatively low when they enter the work force and then rise as they gain job experience. Earnings typically peak after midlife and fall after one enters retirement. Early in their lives, taxpayers might dissave (that is, dip into their savings or, more likely, borrow) to finance college and job training expenses, and then save during their middle years so as to accumulate wealth on which to support themselves in retirement. How much a taxpayer consumes in a given year depends both on that taxpayer's earnings and on how much he or she decides to save. Aggressive savers can support a higher level of consumption in retirement. Incomes can also vary in response to a variety of other events, such as transitions between jobs, unemployment, marriage and divorce, illness, and volatility in business income and income from the sale of assets.

Two conclusions can be drawn from this distinction between lifetime and annual incomes. First, annual consumption rather than annual income might be a better proxy for economic well-being, because consumption is more closely related to income over a longer time horizon than to income in a given year. Second, the use of annual income in analyzing the distributional effects of the current tax system and proposed changes overstates the extent of inequality among taxpayers. Some of the measured inequality will actually reflect comparisons between taxpayers of different ages—for example, comparing a working professional with a retiree who left the work force long ago. Other measured inequality will reflect temporary shocks to income due to changes in employment status, living arrangements, and the uneven manner in which some people earn their income. Distributional analyses that take these factors into account may provide a better measure of ability to pay and of economic well-being.

Long-Term Growth: Boosting Economic Performance by Improving Incentives

A central aspect of tax reform is whether it can improve the economy's overall performance, leading to a rise in real incomes. Reducing the tax system's deleterious impact on incentives to work, save, invest, and innovate would help increase growth and boost real incomes in the long term. The tax system affects these incentives in a number of ways. Differentials in the rate of tax imposed on economic decisions cause households and businesses to shift attention and effort to less taxed activities. These distortions in household and business decisions can result in a misallocation of resources in the economy and reduce real incomes below what could be achieved otherwise.

Box 5-2. What Tax Rate Do Taxpayers Really Face?

Many taxpayers look to their statutory tax rates—their “tax bracket”—to gauge how large a bite the Federal Government takes from their paycheck. Some might be surprised to learn that their effective marginal tax rate—what they actually pay on their last dollar of income—can differ substantially from their statutory tax rate. Moreover, even though statutory tax rates are relatively low at low levels of income, reflecting the progressivity of the current tax rate schedule, the effective marginal tax rates that low-income taxpayers face can in some situations be unexpectedly high.

Chart 5-2 shows the effective marginal tax rate for a hypothetical family of four at various income levels. What is striking about this chart is that effective rates do not consistently rise with income. Rather, there are numerous spikes and steps that reflect the phase-ins and phaseouts of various deductions, credits, and other provisions. Taxpayers may receive a tax benefit from the child tax credit, for example, but find that the tax on their last dollar of income is pushed up as this credit phases out.

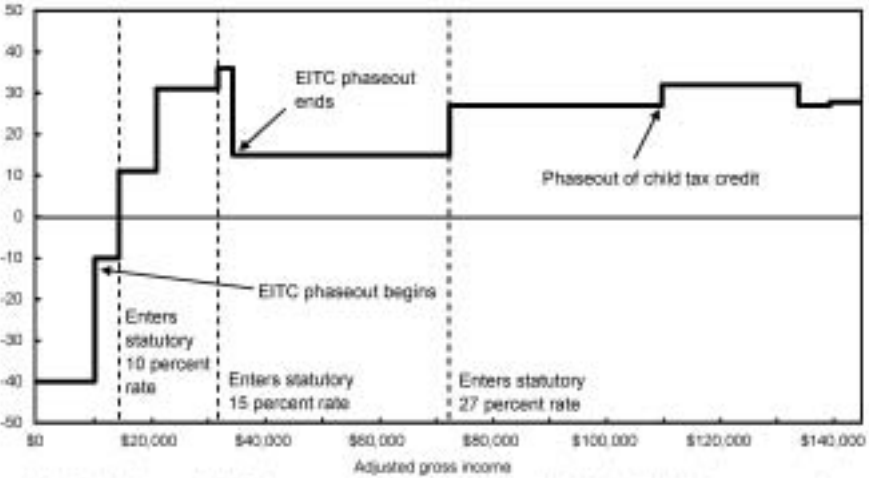
The distribution of effective marginal tax rates for taxpayers at given income levels is shown in Chart 5-3, which documents the extent to which effective marginal tax rates vary at given levels of income. The chart shows marginal tax rates for the 10th, 50th, and 90th percentiles, where taxpayers are ranked at each level of income by their marginal tax rate. At any given income level, 50 percent of taxpayers will have marginal tax rates above the line indicated for the median taxpayer, and 10 percent of taxpayers will have marginal tax rates exceeding the line for the 90th percentile. For example, 10 percent of taxpayers with \$50,000 in income have marginal tax rates that are below 15 percent (the tax rate at the 10th percentile); 50 percent have marginal tax rates below, and half above, 15.3 percent; and 10 percent have marginal tax rates above 27.8 percent.

As the chart shows, marginal tax rates diverge considerably even among taxpayers at the same income level, especially at lower incomes. The divergence arises because of the various deductions and credits that phase in and then out at various rates, depending on a host of taxpayer characteristics and choices. Indeed, these phase-ins and phaseouts would cause considerable variation in effective marginal rates even under a flat statutory tax rate schedule.

Chart 5-2 Marginal Federal Income Tax Rates for Hypothetical Couple in 2003

The effective marginal tax rate schedule for a hypothetical couple is characterized by numerous steps reflecting targeted provisions under the current tax system.

Percent



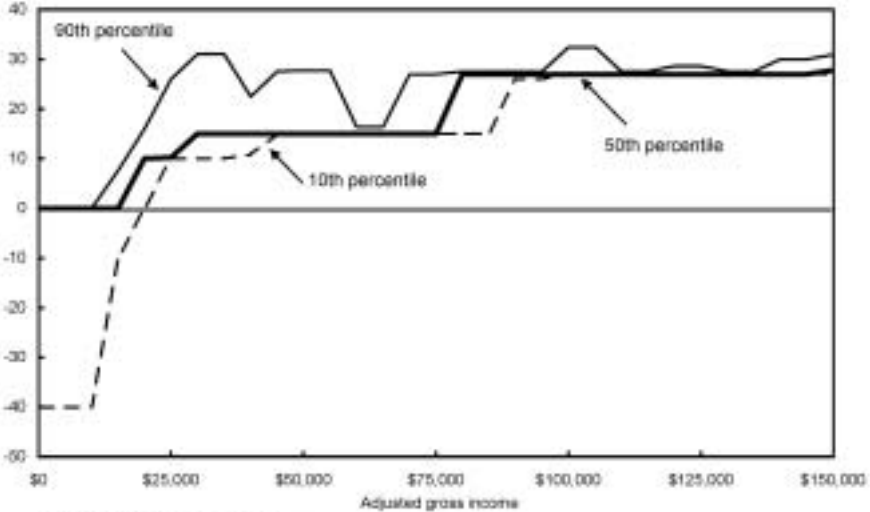
Note: Calculations are for joint-filer, one-earner family with two children under 14. Itemized deductions are assumed to be 18 percent of income.

Source: Council of Economic Advisors.

Chart 5-3 Distribution of Marginal Federal Income Tax Rates for Joint Filers in 2003

Taxpayers at the same income level often face different marginal tax rates, particularly at lower incomes.

Percent



Source: Department of the Treasury.

As described above, reduction of these distortions can have a substantial effect on capital accumulation (and thus wealth), increase long-term growth, and boost real incomes.

Analysis of Alternative Reforms

The two main approaches typically advocated by economists to revamping the current income tax involve moving the current tax base to one that is closer to comprehensive income, or replacing the current income tax with a tax that falls only on consumption. Comprehensive income, which some advocate as the best measure of an individual's overall well-being and ability to pay, is defined as current consumption plus increases to wealth. Taxation based on comprehensive income would include in the tax base all labor income, income from the ownership of capital (such as dividends, interest, rents, and accrued capital gains), and gifts and bequests received. Deductions reflecting the cost of earning income, such as job-related training expenses, would be allowed because they reflect neither purchases for consumption nor any accretion to wealth. One feature of a comprehensive income tax is that it treats individuals with the same accrued purchasing power equally, regardless of the source, thus adhering to the principle of horizontal equity. An individual receiving income primarily from labor, for example, would be treated no differently than a person with the same level of income from capital or a bequest.

This framework, however, has some practical problems related to the taxation of capital gains, inflation, income volatility, and imputed income. Although capital gains reflect additions to wealth, measuring these gains as they accrue is at best problematic: it requires frequent valuation of assets, and accurate market values for some assets cannot easily be established. Another problem is that inflation causes asset appreciation unrelated to changes in purchasing power; a proper accounting would require that the inflationary component of capital gains be removed from the tax base. Dividends and net interest income should likewise be included in taxable income only to the extent they exceed inflationary returns. Yet another problem is that the volatility of taxable income combined with a progressive tax rate schedule could cause two taxpayers who have the same taxable income when cumulated over several years to pay different amounts of tax, thereby violating the principle that taxpayers with equal ability to pay be treated equally.

One of the most vexing problems associated with a comprehensive income tax is the need to include imputed income in the tax base. Imputed income arises from consumption or accretions in wealth that occur outside of normal market mechanisms and therefore are difficult to value. The value

of the services that a homemaker provides is a standard example of imputed income. Another is imputed rent, which accrues to a taxpayer who owns his or her own home, because that taxpayer is just as well off as another who owns a house of equal value but receives rental income from a tenant. Under a comprehensive income tax, imputed rent—the flow of housing services received by owner-occupants who, in effect, rent their house to themselves—would be included in income. Expenses related to producing that income, including depreciation, mortgage interest, and property taxes, would be excluded from income, however. Clearly, taxing such imputed values raises enormous practical difficulties.

A key aspect of analyzing a tax base is taking into account all of the points of collection in the tax system. Income, for example, can be taxed and collected either at the business or at the individual level. If tax on a comprehensive income tax base were collected entirely at the business level, businesses would pay tax on their business receipts, less expenses, but would deduct neither compensation to employees, nor interest payments, nor dividends paid to shareholders. If businesses are not allowed to deduct compensation, they in effect withhold and remit to the government the tax on compensation when paying the business-level tax.

Tax on interest and dividends could also be paid at either the business or the individual level. If paid only at the business level, dividends and interest would not be deductible, and the corresponding income would be excluded from tax at the individual level. If, instead, dividends and interest were taxed only at the individual level, businesses would receive a full deduction for dividends and interest paid.

The current income tax demonstrates the importance of considering all points of collection. Under the current tax system, interest income is not subject to the business-level tax because interest payments are treated as a deductible business expense. Instead, interest payments are included in individuals' taxable income. In contrast, corporate dividends are subject to tax at the business level because dividend payments are not deductible. What is striking, however, is that dividends are also included in individuals' taxable income. Dividends are thus taxed twice.

Consumption, rather than income, has been suggested as another potential tax base. As discussed above, one rationale is the claim that consumption is more closely related to a taxpayer's well-being than annual income. Also, by taxing consumption rather than income, the tax system would not distort taxpayers' decisions about how much income to save. In contrast, because the income tax includes the return to saving in the tax base, it taxes future consumption (that is, current saving) more heavily than current consumption. Under an income tax, current consumption is tax-favored relative to future consumption, thereby discouraging saving.

A hypothetical consumption tax could be implemented in any of several ways. It could, for example, take the form of a national retail sales tax imposed broadly on all consumption goods at the final stage of production. An alternative form of consumption tax, common in Europe, is the credit-invoice method value-added tax (VAT), where a business pays taxes on its total receipts but receives a credit for taxes previously paid by suppliers on goods that the business has purchased from them. This tax builds in a degree of self-enforcement, because businesses can claim a credit against their tax bill only if another business has previously paid tax on the sale. Nevertheless, the experience with State sales taxes and with the European VAT suggests that compliance can be undermined and considerable complexity added when certain final products are fully or partly exempted. Some have suggested that transactions-based national retail sales taxes, where revenue is collected at every point of final sale, raise difficult administrative and compliance issues and may become infeasible at a rate above 10 percent.

Alternatively, a tax on final goods consumed by households could be imposed on businesses' total receipts less payments to other businesses, including purchases of equipment and structures. This type of entity-based consumption tax, called a subtraction-method VAT, imposes tax on final purchases by consumers, which is remitted on the value added by businesses at each stage of production. Because a subtraction-method VAT does not provide a deduction for compensation, nearly 60 percent of the tax base reflects compensation to workers. Under this approach, the tax on housing consumption would essentially appear as a tax on the construction and sale of new homes. This payment of tax on the value added at each stage of the production of new homes is equivalent to "prepaying" the tax on the future stream of annual housing consumption that the home provides; that is, it is equivalent to a tax on annual imputed rental income.

The deduction for purchases from other businesses under a subtraction-method VAT ensures that the tax does not fall on previously taxed business sales. Unlike with an income tax, the deduction for investment expenditure (in other words, expensing rather than depreciation) exempts from tax a portion of the return to a capital investment. In economic terms, the deduction for investment expenditure exactly equals the tax on the cash flow from the expected "normal" return on the investment. Therefore the deduction eliminates the tax on this part of the investment return; that is, the return to capital at the margin is fully exempt from tax. However, to the extent the investment returns an amount in excess of the expected normal return, perhaps because of chance, innovation, or successful risk taking, the tax on these above-normal returns (what economists call supernormal or inframarginal returns) will exceed the tax value of the initial deduction. That is, these supernormal returns will generally be taxed. Treatment of investment

earnings under a consumption tax would thus be similar to that under Individual Retirement Accounts, as Box 5-3 explains.

The subtraction-method VAT has received a lot of attention in discussions of tax reform because, with slight modification, its structure becomes very similar to that of the current income tax. Instead of taxing compensation at the business level as under the subtraction-method VAT, compensation could be taxed at the household level by allowing businesses to deduct employee

Box 5-3. How Are Consumption Taxes and Individual Retirement Accounts Similar?

Individual Retirement Accounts (IRAs) treat investment earnings in the same way that a consumption tax would. They thus provide a framework for describing how a consumption tax would exempt a portion of investment earnings from tax. If taxpayers deduct contributions to an IRA from their taxable income, they are also required to include all distributions from the IRA in their taxable income. For the purpose of discussing the tax treatment of the return to saving under a consumption tax, the IRA contribution limits can be ignored. An investor with unlimited access to capital would invest up to the point where the payoff from an additional dollar invested (the marginal investment) just covers the costs of the investment, including taxes. The value of the upfront deduction for the initial investment, however, will exactly offset (in present value) the tax on the expected normal return when the IRA is distributed. Consequently, with an IRA the decision to invest an additional dollar is unaffected by the tax. Returns above the expected normal return (extraordinary returns), however, will generally be subject to tax.

Consumption taxes treat investment earnings in essentially the same way. Under a national retail sales tax—the most straightforward type of consumption tax—no tax is paid on income that is saved or on investment earnings that are reinvested. Tax is paid only on sales of final goods and services, that is, when the taxpayer consumes. The taxpayer, in effect, receives an upfront deduction on savings. Imposing a tax on final sales is thus effectively the same as taxing a distribution from an IRA. Other types of consumption taxes, such as the subtraction-method value-added tax and the two-tiered value-added tax, where compensation is taxed at the household level, work in essentially the same way.

Roth IRAs provide tax benefits that are similar to those of deductible IRAs but differ in the timing of taxes paid. In contrast to a deductible IRA, contributions to Roth IRAs are not deductible from taxable income. Contributions are made with after-tax dollars, but distributions from Roth IRAs are tax free. An important insight about deductible IRAs and

Box 5-3.—continued

*Taxation of Investments With and Without Extraordinary Returns:
Deductible IRA versus Roth IRA*

Item	Investment without extraordinary returns		Investment with extraordinary returns	
	Deductible IRA	Roth IRA	Deductible IRA	Roth IRA
Investment	\$1,000	\$1,000	\$1,000	\$1,000
Initial tax payment.....	0	-270	0	-270
Contribution	1,000	730	1,000	730
Investment earnings.....	100	73	5,027	5,000
Account balance after 1 year	1,100	803	6,027	5,730
Tax due upon distribution.....	-297	0	-1,627	0
After-tax distribution/account value	803	803	4,400	5,730

Note.—Calculations are for a hypothetical 1-year investment, assuming no restrictions or penalties on distributions. The taxpayer is assumed to face a 27 percent tax rate when making the contribution and upon distribution. The investment without extraordinary returns is assumed to return 10 percent, which is similar to the historical return to corporate equities. The extraordinary or inframarginal return is assumed to be \$5,000 on the first \$730 contributed to each IRA and 10 percent on the remaining \$270 contributed to the deductible IRA.

Source: Council of Economic Advisers.

Roth IRAs is that an equivalent investment in each type of account will result in the same after-tax account balance and finance the same amount of consumption during retirement.

The table above illustrates the equivalence between deductible and Roth IRAs for an investment without extraordinary returns. In this example, \$1,000 is invested in a deductible IRA and \$1,000 in a Roth IRA before paying tax. In the case of the deductible IRA, the upfront deduction offsets any tax due. In the case of the Roth IRA, the taxpayer contributes the after-tax amount to the IRA. After 1 year the initial investment plus investment earnings are distributed. Tax is paid on the distribution from the deductible IRA, but not on that from the Roth IRA. The key point is that the after-tax distributions from the two IRAs are identical; that is, both investments finance the same level of consumption. This result will always hold provided the duration and rates of return of the investments are the same and the tax rates at the time of contribution and the time of distribution are equal. Aside from these factors, savers should generally be indifferent between deductible and Roth IRAs.

Box 5-3.—*continued*

What is the significance of this difference in the timing of tax payments between deductible and Roth IRAs? Under a Roth IRA the taxpayer effectively is prepaying tax. Conversely, under a deductible IRA, the government in effect becomes a co-investor in an amount equal to the upfront deduction. The government receives its share of the earnings on the investment in the form of the tax payment due upon distribution. For an investment with expected normal returns, the tax payment due upon distribution under a deductible IRA is equivalent to the prepayment of tax under a Roth IRA. If the government could “reinvest” the tax received from prepayment under a Roth IRA in an equivalent investment, the value of its investment would be exactly equal to the tax payment due upon distribution under the deductible IRA.

However, this equivalency may not hold if the investment yields certain types of extraordinary returns: what economists sometimes call inframarginal returns, such as might result from innovation, discovery, or an idea with an extraordinarily large payoff. If these returns are, at some level, fixed, they preclude reinvestment of the tax prepayment at the same extraordinarily high return. In contrast, risky investments do not necessarily produce inframarginal returns, because additional investments could be made at the same rate of return.

The table compares the after-tax value of investments in deductible and Roth IRAs with such extraordinary returns. With a deductible IRA the extraordinary returns are taxed through the government's role as a co-investor. However, under the Roth IRA, this type of extraordinary return goes untaxed, and the Roth IRA has a correspondingly higher after-tax value than the deductible IRA.

This result has important implications for consumption taxes. A consumption tax that works like a deductible IRA will tax all extraordinary investment returns, including inframarginal returns from innovation and ingenuity. The example of the deductible IRA also illustrates how expensing of investment taxes such extraordinary returns. The different tax treatment of extraordinary returns under a deductible IRA than under a Roth IRA also illuminates the key difference between a destination-based tax, which taxes imports but not exports, and an origin-based tax, which taxes exports but not imports (discussed later in the chapter). The taxation of exports under the origin principle works like a prepayment mechanism that has the effect of exempting extraordinary returns from tax.

compensation and imposing a tax on compensation at the household level. In contrast to a subtraction-method VAT, this structure (sometimes called a two-tiered consumption tax) has several possible advantages. First, its similarity in structure to the current income tax could ease the transition and facilitate acceptance. Second, unlike transactions-based and entity-based consumption taxes, a two-tiered consumption tax would permit progressivity to be introduced directly through the household-level tax by allowing generous exemptions to individuals or by retaining tax preferences available under current law. Of course, targeting of tax preferences for social policy objectives introduces complexity and may have the unintended consequence of distorting taxpayer behavior by implicitly imposing high effective marginal tax rates.

Switching to a consumption tax without the necessary transition provisions might impose a one-time levy on existing capital. In the context of a cash flow tax, such as a subtraction-method VAT, that allows expensing of investment, this one-time levy occurs because full expensing makes new investment cheaper. The one-time levy would not distort economic decisions, however, because it is imposed on existing capital, for which the decision to invest has already been made, not on new capital. Taxing existing but not new capital may transfer income from the old, who have accumulated assets over their lifetimes, to the young, who have just begun to do so. This raises important issues of fairness. The one-time tax on existing capital would mean a reduction in the tax burden of the young, reflected through lower tax rates, which itself would offset the decline in value of existing assets and improve incentives to work and save and allow a higher rate of capital accumulation.

Consumption tax reform could offer some type of transition relief to reduce the one-time tax on existing capital. Partial transition relief could take the form of allowing businesses to retain their basis in existing capital. The extent of transition relief would determine the size of the tax on existing capital. The more generous the transition relief, the smaller the benefits of a shift to a consumption tax base.

What Does the Current System Tax?

The current tax system deviates from both a comprehensive income tax base and a comprehensive consumption tax base in important ways. First, a substantial share of income is removed from the tax base through the exclusions, exemptions, deductions, and credits available under current law. As Chart 5-4 shows, tax preferences under current law reduce the income tax base from what it would be under a comprehensive income tax by over 40 percent. A few major preferences, such as the personal exemption, the standard deduction, and itemized deductions, including the home mortgage

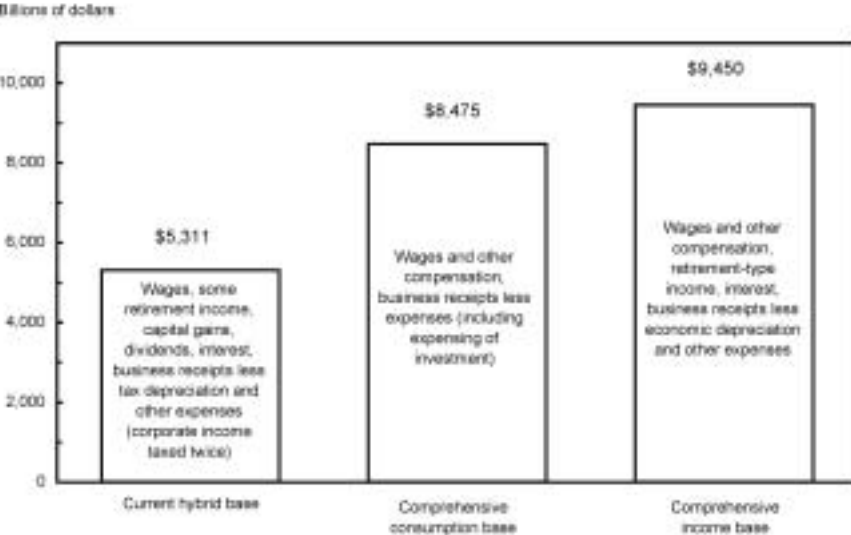
interest deduction, account for 40 percent of income excluded from the comprehensive income tax base. Exclusions, primarily for tax-preferred savings and employer-provided health insurance, remove another 30 percent, with other tax preferences accounting for the rest of the gap.

Tax preferences can distort economic decisions by creating tax differentials between different types of income and consumption. These preferences are similar to government transfers, or to subsidies that have the same effect as direct government expenditures. As already noted, these preferences pose a tradeoff against the higher marginal and average tax rates needed to raise a given amount of revenue, which then distort household and business decisions. Preferences that apply unequally to taxpayers with similar resources also violate the principle of horizontal equity.

Many of these preferences, however, serve useful social purposes. Some of the preferences listed in Chart 5-5, for example, such as that for employer-provided health insurance, subsidize health care expenditure. The personal exemption, the child tax credit, and the EITC adjust taxable income to reflect ability to pay.

An important difference between a comprehensive income tax and the current income tax is the high degree of differential taxation present in the latter. The double tax on newly equity-financed corporate investment, as described later in the chapter, is one of the most important examples, but others abound. There is considerable variation across asset types in the acceleration of

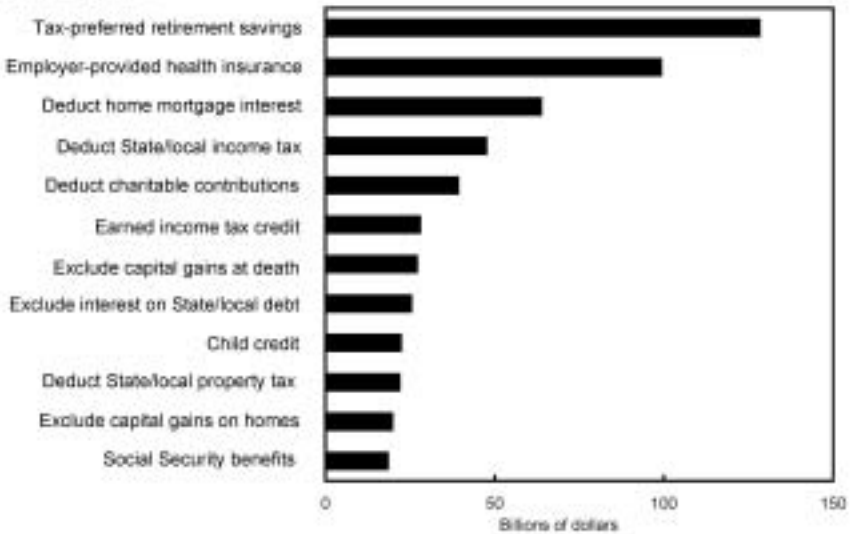
Chart 5-4 Alternative Tax Bases, 2000
 Exclusions, deductions, exemptions, and credits reduce the comprehensive income base by over 40 percent.



Source: Council of Economic Advisers.

Chart 5-5 The 12 Largest Tax Expenditures, FY2002

Targeted tax preferences, including deductions and exemptions, entail large revenue costs under the current tax system.



Source: Office of Management and Budget, Budget of the United States of Government, Fiscal Year 2004.

depreciation allowances, implying different tax rates for different investments. The current tax system also taxes capital gains and dividends differently, excludes from tax the implicit returns from consumer durables, and exempts from tax the interest paid on State and local government bonds.

Like a comprehensive consumption tax, the current income tax also exempts a substantial amount of income generated from returns to savings through a variety of tax-preferred retirement plans and accounts. (Together these amount to the largest item listed in Chart 5-5.) In 1998 roughly 99 million individuals participated, as either active workers, separated but vested workers, survivors, or retirees, in the current system of employer-managed pensions. About 29 million workers were active participants in defined-contribution plans (plans in which benefits vary with the return on the invested funds). Contributions to these plans are tax deductible, with employers often providing matching contributions. Another 23 million workers participated in defined-benefit plans, to which employers make tax-deductible contributions on behalf of employees, with benefits typically based on past pay and years of service. The investment income earned within these accounts accrues tax-free, but distributions are included in taxable income.

Individual Retirement Accounts (IRAs) and similar arrangements such as Medical Savings Accounts, Coverdell Savings Accounts, and college savings and prepaid tuition (Section 529) plans provide similar tax advantages. The

TABLE 5-1.— *Household Saving in Tax-Preferred and Taxable Accounts, 1999*

Item	Billions of dollars	Percent of gross household saving	Percent of expanded disposable income
Expanded disposable personal income	6,911		
Gross household saving	853	100.0	12.3
Saving in tax-preferred plans/accounts	249	29.1	3.6
Employer pension plans	164	19.2	2.4
Individual Retirement Accounts	43	5.0	.6
Life insurance and other tax-preferred accounts	43	5.0	.6
Investment in owner-occupied housing	258	30.2	3.7
Net acquisition of taxable financial assets (less accrued taxes)....	347	40.7	5.0
Less: Household borrowing	579		8.4
Home mortgage borrowing	374		5.4
Consumer and other borrowing	206		3.0
Equals: Net household saving	274		4.0

Note.—Expanded disposable personal income is equal to disposable personal income plus net investment in government retirement accounts and corporate retained earnings less the accrued tax liability of saving. Detail may not add to totals because of rounding.

Source: Council of Economic Advisers, using methodology described in William G. Gale and John Sabelhaus, "Perspectives on the Household Saving Rate," *Brookings Papers on Economic Activity*, 1999, and updated data from Department of Commerce (Bureau of Economic Analysis), Board of Governors of the Federal Reserve System, and Investment Company Institute.

combined effect of the upfront deduction for contributions and the tax deferral on earnings is a zero tax (in present value terms) on the returns to assets held within these accounts, although, as discussed below (and in Box 5-3), so-called extraordinary returns are still taxed in all but the Roth IRA and other types of accounts where tax is "prepaid." In 2001 about \$10.9 trillion in assets was held within these tax-preferred retirement accounts. An additional \$22 billion was held within State-sponsored prepaid tuition and college savings plans.

Because saving is the difference between income and consumption, the exclusion of significant amounts of investment income from the tax base has the effect of transforming the current tax system into a system that is partly based on consumption. Table 5-1 puts this point in perspective by comparing various categories of saving in the United States for 1999 (the latest date for which consistent data are available). Gross household saving was about \$853 billion in that year. Saving net of borrowing was about \$274 billion, implying a household saving rate of about 4.0 percent of income. Saving in tax-preferred accounts—defined-benefit plans, defined-contribution plans, IRAs, and life insurance accounts—accounted for nearly 30 percent of gross household saving in 1999.

Saving in owner-occupied housing accounted for another 30 percent of gross household saving. As previously noted, imputed rental income is not

taxed under the current system. Most of the appreciation in the value of owner-occupied housing is likewise not taxed through the current exclusion from capital gains taxation (\$500,000 for taxpayers filing jointly, \$250,000 for single taxpayers). This treatment exempts from tax most investment income from owner-occupied housing. Interest and dividends are taxed when received, but tax on the appreciation of financial assets is paid only upon disposition of the asset (that is, tax is deferred), and then at preferential capital gains rates, although the amount subject to tax includes inflationary as well as real gains.

Although tax-preferred retirement saving and housing thus face effective tax rates on the expected normal return that are close to zero (in present value), taxpayers do not, in many cases, face a zero tax rate on their last dollar of investment income. There are two explanations for this. First, an individual's saving may exceed his or her eligible contributions to these accounts. Second, taxpayers may be investing outside of these accounts because their purposes are other than the prescribed goals of these accounts. Moreover, only about 50 percent of employees had access to or were covered by an employer-managed pension plan in 1999. However, virtually all individuals with earnings have access to some type of tax-preferred savings program, including IRAs, because taxpayers without access to an employer-managed pension plan are generally eligible to deduct contributions to an IRA from taxable income. Thus the set of taxpayers who do not receive consumption tax treatment on their last dollar of retirement savings consists of those without access to a pension plan and who make the maximum IRA contribution, plus those (very few) with access to a pension plan who make the maximum contribution. Data for the mid-1990s indicate that only about two-thirds of taxpayers reporting deductible IRA contributions (2.5 million in 1996) contributed the maximum amount allowed, and some of these taxpayers also contributed to 401(k)-type plans. Most other taxpayers received consumption tax treatment on their last dollar of saving for retirement, and even more will do so as the higher contribution limits for both 401(k)-type plans and IRAs, enacted under the Economic Growth and Tax Relief Reconciliation Act of 2001, are phased in over the next several years.

A number of special considerations arise when one contrasts the current tax system with either the comprehensive income or the consumption tax model. These considerations affect important productive resources or sectors of the economy, such as human capital, housing, and the nonprofit sector, and are discussed below.

Taxation of Human Capital

Because human capital is the most important component of national wealth, it is also important to consider the tax treatment of this capital under

a comprehensive income or consumption tax. Investment in human capital through education can be thought of as creating an intermediate input to be used in the production of a final good and that pays a return: the educated worker's future stream of wages. Under the consumption tax model, only final goods, not intermediate goods, should be subject to tax. Under the current tax system, the tax treatment of human capital investment is mixed. Costs of human capital accumulation include forgone earnings as well as direct costs such as books, tuition, and supplies. Presently, of course, the implicit cost of education represented by earnings forgone while receiving education is not subject to tax but, consistent with a consumption tax, is immediately expensed. Direct costs, including books, tuition, and supplies, however, are currently subject to varying degrees of taxation.

Under current law a variety of tax provisions affect the tax treatment of education expenditure. The Hope and Lifetime Learning tax credits and the temporary deduction for higher education expenses (scheduled to expire after 2004) all provide varying degrees of relief, but they may not provide relief at the margin or for the last dollar of postsecondary education expenditure for many taxpayers. There are also several types of education savings vehicles, such as Coverdell Savings Accounts and State college savings and prepaid tuition plans, which exclude investment earnings on education-related savings from tax. The college savings plans in particular, because of their very high contribution limits, tend to provide consumption tax treatment at the margin on the return to saving for higher education. The potential costs of the residual bias against human capital formation can be significant. Research has indicated that a 1-percentage-point increase in the income tax rate may cause the long-run stock of human capital to decline by almost 1 percent—an effect with significant implications for national wealth. Nevertheless, in addition to the various types of household saving listed in Table 5-1, the expensing of forgone earnings and the various tax preferences for education move the current system toward consumption tax treatment of human capital.

Taxation of Housing

As discussed above, investment in owner-occupied housing is tax-favored relative to other investment under the current tax system. The primary source of this tax preference is the exclusion of the annual value of housing services—imputed rental income—from income taxation. Although the owner of a rental property is taxed on his or her rental income, no tax is paid on the annual flow of housing services received by owner-occupants. Owner-occupied housing enjoys other tax advantages. Certain expenses related to homeownership, such as mortgage interest and State and local property tax

payments, are allowed as itemized deductions. The deductibility of local property taxes lowers the price of local public services. As noted above, the first \$500,000 of capital gains is excluded from income upon sale of a primary residence. These advantages result in greater consumption of housing services, and services provided by local governments are tax-favored relative to similar, privately provided services.

Taxation of Nonprofits

The nonprofit sector—religious groups, private educational institutions, government-sponsored enterprises, hospitals, and various associations and foundations—is excluded from the current income tax to the extent that the organizations themselves are generally not subject to tax. The wages of nonprofits' employees are, of course, subject to tax. There are also substantial tax incentives in the tax system for individuals and businesses to contribute to nonprofit organizations. Whether this relative tax advantage would be retained if the current income tax were replaced by a consumption tax depends on how the tax is structured. Under a two-tiered consumption tax similar in structure to the current income tax, the current relative tax advantage of nonprofits could be retained. The wages of their employees would remain subject to tax under this type of consumption tax. However, under a transactions-based consumption tax, such as a national retail sales tax, there would be greater difficulty in exempting nonprofit organizations from tax. In the case of a national retail sales tax, a system of exemptions for purchases made by nonprofits would be needed, and this could add complexity. The cost of charitable giving to nonprofits, however, might change substantially under a consumption tax, for two reasons. First, there is the issue of whether the individual and business deductions for charitable giving would be retained. Second, incentives to give would be affected by any change in the tax rate schedule. To the extent tax rates fall as a consequence of fundamental tax reform, the tax incentive for individuals and businesses to give to nonprofits would decline as well.

Distributional Consequences of Tax Reform

It is sometimes argued that a consumption tax base is less fair than an income tax base because the benefit of not taxing capital income accrues largely to those with higher incomes. However, this claim depends critically on the time frame used to analyze the distributional effects of the two tax bases. Consumption taxes are generally less regressive when viewed from a lifetime perspective than when viewed from an annual perspective. It might be expected that, for many individuals, lifetime consumption should be

roughly equal to lifetime income. If this is the case, the lifetime incidence of a consumption tax and of an income tax should be close to proportional.

Also, as discussed above, a one-year snapshot of the distributional effects of many tax changes can be misleading, because this type of distributional analysis fails to take into account the fluidity of taxpayer incomes and other characteristics (Box 5-4). Younger taxpayers entering the work force are likely to have relatively low incomes as they continue to acquire human capital through education and job experience. As their human capital develops, their incomes tend to rise, peaking shortly before retirement. Saving and consumption patterns follow this cycle, with a period of accumulation accelerating in midlife and peaking before retirement, when dissaving begins. These patterns have been well documented, and distributional analyses that do not take them into account may be misleading.

Consumption taxes may also be less regressive than often thought because the bases of both a consumption tax and an income tax include key elements of what is commonly called capital income. Capital income can be broken down into four components: the return to waiting (that is, the opportunity cost of capital), the return to risk taking (the risk premium), economic profit (that is, the inframarginal return to investing), and the difference between expected and actual returns. The key to analyzing the difference in distributional effects between a consumption tax and an income tax is that a consumption tax exempts the first component of capital income from tax, whereas an income tax includes it. The remaining three components are generally taxed under both systems.

To understand how some forms of a consumption tax subject some capital income to tax, it is useful to consider how the tax treats investment expenditure. Under a cash flow consumption tax, a firm expenses its capital purchases. A successful investment will generate a series of future cash flows to the firm. These future cash flows will be subject to tax, but the present value of the expected future series of tax liabilities, as valued by the market, will be exactly equal to the tax value of expensing the capital expenditure. Because deductions have the same impact as other Federal Government capital market transactions, they are valued the same as a risk-free investment, often assumed to be represented by the interest rate on Treasury bills.

The key point is that, to the extent that future cash flows from the investment exceed (in present value) the initial investment, the excess will generally be taxed. Future cash flows resulting from extraordinary profits, due to innovation or the return to risk taking, are all generally subject to tax. That is, to the extent the actual return exceeds the yield on a risk-free investment, as reflected by the Treasury bill rate, the difference will generally be subject to tax under both a consumption tax and an income tax. The general public is thus, in a sense, a proportional shareholder in all enterprises—a co-investor—under an income or a consumption tax. Thus the general

public shares in the rewards to the extent the returns are unexpectedly high, and shares in the losses in the case of a shortfall. Only the return to waiting is generally exempt from tax under a consumption tax. As noted above (Box 5-3), certain types of extraordinary returns, such as inframarginal returns, may also be free from tax if tax is “prepaid,” because the government no longer acts as a co-investor and does not share in these inframarginal returns. However, under a consumption tax, prepayment may be limited to difficult-to-tax activities, such as housing services and investment in intangibles.

How important is it that only the opportunity cost of capital—the expected normal return—generally goes untaxed under a consumption tax? The answer depends critically on how large this opportunity cost is relative to total capital income, and on who tends to receive this component of capital income. If this component is large and received primarily by higher income taxpayers, shifting to a consumption tax would have the immediate effect of benefiting these taxpayers. It is important to note that the real risk-free rate of return available to a tax-exempt investor has historically been below 1 percent a year.

Box 5-4. Taxpayers Exhibit Substantial Fluidity Across Tax Rate Brackets

Do taxpayers tend to face the same marginal tax rate over time, or do they change tax rate brackets as predictable and unpredictable life events occur and their circumstances change? The table on the next page considers the dynamics of statutory tax rate brackets over a 10-year period: the statutory tax rate brackets of taxpayers in 1987 are compared with their statutory tax rate brackets in 1996 (these were the years for which these data are available). In each year the statutory tax rates the taxpayer would have faced had the Economic Growth and Tax Relief Reconciliation Act of 2001 been in place in 1987 and 1996 (with appropriate inflation adjustments) are compared. If most taxpayers face the same tax rate at the beginning and the end of this 10-year period, it might be concluded that a static, one-year snapshot is a good indicator of a taxpayer’s lifetime average tax rate.

The tabulations, however, show a substantial amount of dynamics. Taxpayers who remained subject to the same statutory tax rate in both year 1 and year 10 are on the diagonal of the table (shown in bold). About 53 percent of taxpayers (the proportion of taxpayers not on the diagonal) were in a different tax rate bracket at the end of the period than at the beginning. There was significant movement toward higher tax brackets, reflecting upward mobility. In all, about 28 percent of taxpayers had moved to a higher tax rate bracket at the end of the

Box 5-4.—continued

*Taxpayers by EGTRRA Rate Bracket Using Panel
of Taxpayers from 1987 through 1996*

Year 1 tax bracket (percent)	Year 10 tax bracket (percent)							Returns in year 1 (thousands)
	0	10	15	25	28	33	35	
	Taxpayers by rate bracket (percent distribution)							
0	33.8	24.7	32.1	7.7	0.8	0.5	0.3	10,360
10	20.1	29.3	40.8	8.8	.6	.3	.1	15,370
15	8.6	13.3	53.4	22.9	1.2	.4	.2	50,059
25	3.9	5.1	29.9	51.4	6.7	2.2	.8	31,427
28	3.3	2.8	11.6	35.9	24.0	14.7	7.5	2,682
33	4.7	2.6	9.1	21.0	18.9	23.9	19.8	1,096
35	5.1	1.9	5.7	10.4	8.8	19.0	49.1	633

Note.—Tabulations from 1987-1996 panel of taxpayers. Tabulations include only non-dependent taxpayers present in all years of the panel data set. Each cell entry indicates the percent of taxpayers in a rate bracket in the last year of the panel (i.e., column entry) relative to the number of all taxpayers in that rate bracket in the first year of the panel (i.e., row sum).

Source: Council of Economic Advisers, based on tabulations provided by Department of the Treasury, Office of Tax Analysis.

10 years. About 66 percent of the taxpayers in the bottom (zero tax rate) bracket in year 1 had moved to a higher bracket after 10 years, the vast majority moving to either the 10 percent or the 15 percent bracket. About 47 percent of taxpayers in the bottom two brackets combined (the zero and 10 percent brackets) had moved to a higher bracket by the end of the period, although relatively few moved beyond the 15 percent bracket. There is also substantial movement down the tax rate schedule. In all, about 26 percent of taxpayers moved to a lower tax bracket. About 51 percent of the taxpayers in the top bracket in the first year were in a lower tax bracket after 10 years. Forty-seven percent of taxpayers in the top two brackets in year 1 had moved down to at least the 28 percent tax bracket by year 10.

Although relatively few taxpayers moved from the lowest tax rate brackets to the highest, a considerable fraction moved from the highest brackets to the lowest. Of those starting in the 15 percent tax bracket or below, only 1 percent reached the top two brackets. In contrast, of those starting in the 33 percent bracket or above, 15 percent had moved to the 15 percent bracket or below after 10 years. Of course, taxpayers in the lower brackets may also be more likely to become nonfilers, a possibility not accounted for here.

A considerably larger percentage of taxpayers were subject to any particular tax rate at some time over the 10-year period than in just the initial period. For example, more than twice as many taxpayers

Box 5-4.—*continued*

were subject to one of the top two rates in either year 1 or year 10 (3.3 percent of returns) than in just the first year (1.5 percent of returns). Moreover, this calculation excludes those taxpayers who may have faced the top two rates during the intervening years but not in year 1 or year 10, and the possibility that some taxpayers may not have filed a tax return in some years. An analysis of all taxpayers who filed a return in year 1 and were still alive in year 10 shows that nearly four times (5.8 percent) as many taxpayers were subject to one of the top two rates in at least 1 of the 10 years.

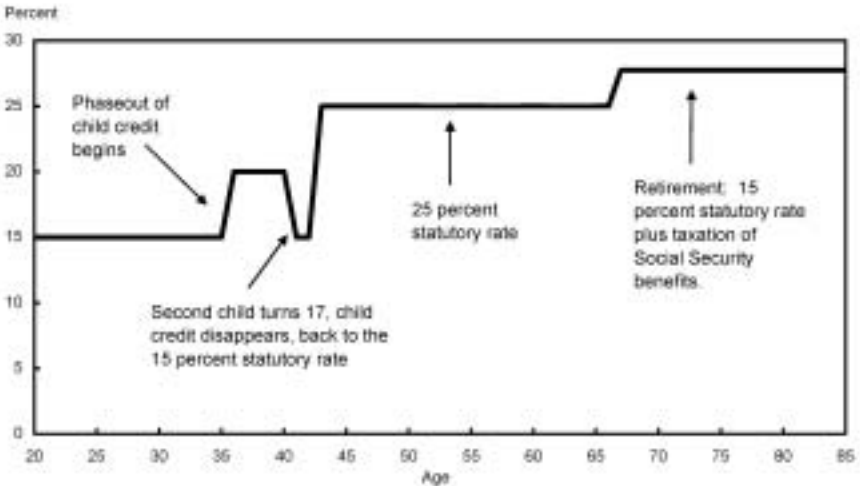
A number of factors explain the fluidity of taxpayers across tax rate brackets over time. One piece of the puzzle is that most taxpayers' incomes grow as they gain job experience and education, but then decline in retirement as they leave the work force and rely on their Social Security benefits, pensions, and savings, which may be nontaxable. Chart 5-6 shows the change in a hypothetical couple's marginal tax rate as that couple's income follows this life cycle pattern of growth followed by decline. In this example, a two-earner couple with two children earn about \$65,000 at age 30 and pay income and Social Security taxes. They buy a home and save for life's uncertainties, their children's education, and their own retirement, using taxable accounts plus a 401(k). When they retire, they collect Social Security and live to the age of 85. For simplicity, it is assumed that they neither receive an inheritance nor leave a bequest. The couple's marginal tax rate, the rate paid on the last dollar of earnings, varies greatly over the life cycle, reflecting the couple's passage through the various tax rate brackets and the phase-in and phaseout of various tax deductions and credits as their earnings and other characteristics change. The couple at first faces a 15 percent marginal tax rate, then briefly faces a marginal tax rate of 20 percent because of the phaseout of the child tax credit, and then faces a 25 percent marginal tax rate in midlife during the peak earnings years. Toward the end of life the couple is in the 15 percent statutory rate bracket, reflecting the decline in income in retirement, but pays 27.75 cents on the last dollar of income because the couple is in the phase-in range of the tax on Social Security benefits.

Many taxpayers also have short-term fluctuations in their income as they move in and out of the labor force or between jobs, or as their business and investment income is hit by the ebbs and flows of the business cycle. Finally, factors other than income, such as having children, going through marriage and divorce, or facing unusually high medical expenses, as well as charity or home mortgage interest, can all affect which tax bracket a taxpayer falls into.

Box 5-4.—continued

The substantial movement of taxpayers across rate brackets suggests that tax burdens in a given year may tell a very different story of the distribution of the tax burden than do measures of tax burdens over longer horizons. These differences are important for evaluating the distributional effects of changes in tax rates. Analyses that rely on annual snapshots of taxpayer incomes are likely to suggest that a small fraction of taxpayers benefit from rate cuts, when in fact a larger fraction of taxpayers are likely to benefit because of the substantial movement of taxpayers up and down the tax rate schedule over time.

Chart 5-6 Effective Marginal Tax Rates by Age for Hypothetical Couple
A hypothetical couple with a typical lifetime earnings profile will face a variety of different tax rates over the course of their lives.



Note: Calculations are for joint-filer, two-earner family with moderate lifetime income and assumes taxpayers not subject to the alternative minimum tax.

Source: Council of Economic Advisers.

Decisions on the Path to Reform

A number of choices would be involved in any effort to reform the tax system. Some of these choices represent substantial shifts in tax policy but could be made without major structural changes to the current tax. Also, some of these changes do not involve a choice between the income and the consumption tax frameworks but must be addressed within either framework.

Integration and the Double Tax on Corporate Income

The current tax system imposes a heavy tax burden on equity-financed corporate investment through the double tax on corporate income. Eliminating the high degree of differential taxation is the rationale behind the President's proposal to abolish this double taxation. Corporate income from a newly equity-financed project is subject to two layers of tax. First, the corporate tax is paid on earnings at the firm level at a maximum rate of 35 percent. For income distributed as a dividend, the second layer of tax is paid by individual shareholders at a maximum rate of 38.6 percent (plus any State or local income tax). Alternatively, for assets held for more than 5 years, shareholders pay tax at a statutory rate of 18 percent on the appreciation in stock value that arises from corporate earnings retained and reinvested in the firm. The total effective tax on corporate income is calculated by combining the two layers of tax. As Table 5-2 shows, the effective tax rate (for Federal tax alone) on corporate income distributed to shareholders as dividends can be as high as 60.1 percent. For corporate income that is retained by the firm and realized by a shareholder as a capital gain, the effective tax rate can be as high as 40.9 percent after accounting for substantial deferral. The effective tax rate on capital gains is lower than the effective rate on dividends because of the preferential tax rate on long-term capital gains realizations and the ability to defer taxes until gains are realized.

The double taxation of corporate income affects economic decisions in a number of important ways that may reduce corporate investment, encourage artificially high debt-to-equity ratios, discourage the payment of dividends, and favor noncorporate organizational forms. The high tax on capital may also discourage risk taking and innovation through its effect on entrepreneurship. New firms innovate by developing new products and technologies and are a testing ground for new forms of internal organization. Other firms can imitate successful new approaches, leading to economy-wide improvements in productivity and faster economic growth.

TABLE 5-2.— *Tax Rates on Capital Income for a Hypothetical Investor in 2003*

Capital income	Individual tax rate	
	27.0 percent	38.6 percent
	Percent	
Dividends	52.6	60.1
Retained earnings	40.9	40.9
Debt	27.0	38.6
Pass-through income	27.0	38.6

Note.—Calculations are for a new equity-financed project and assume a 35 percent corporate tax rate and the indicated individual tax rate on ordinary income in 2003. An effective 9 percent rate is assumed for capital gains realizations (i.e., 18 percent rate for assets held for more than 5 years multiplied by 0.5 to approximate the benefit of deferring tax on accrued gains until the asset is sold).

Source: Council of Economic Advisers.

Debt Versus Equity Financing

Equity financing is tax disadvantaged relative to debt financing because interest income, unlike dividends, is generally subject to only one layer of tax, at the individual tax rate. As already mentioned, interest payments are deductible as a business expense and thereby excluded from the corporate tax base. Table 5-2 shows that the maximum effective tax rate on interest earnings is 38.6 percent, the maximum tax rate on ordinary income. The encouragement of debt financing through the tax system results in an increased risk of bankruptcy and financial distress. A heavier debt burden leaves firms particularly vulnerable to capital market risk during a downturn or weakness in the economy. Business failures and financial distress can result in losses to shareholders, debtholders, and employees alike.

Dividend Payout Policy

The double taxation of dividends may also distort corporate dividend payout policy and the investment decisions of firms. The economics literature has generally found that, for new equity-financed investments, corporate income paid out as dividends is tax-disadvantaged relative to corporate income that is retained. This has important economic consequences. The heavier tax burden on dividends can encourage investment in established businesses with internally generated earnings, because these businesses will tend to have more retained earnings because of the tax distortion. The distortion also favors stock repurchases over dividends.

Dividends may also provide a number of important benefits to investors that have a direct bearing on corporate governance. Payment of dividends may provide a signal to investors of a company's underlying financial health.

Indeed, it may be a particularly potent signal given the current backdrop of shaken confidence in corporate financial reporting. A firm cannot continue to pay dividends for very long unless it has the earnings to support such payments. Corporate managers and directors may have better information about the firm's future cash flows than do persons outside the company, and dividend payments may reflect this information. Dividend payments may also be one way for shareholders to impose discipline on corporate managers: reducing the amount of cash at the discretion of management may focus management's attention on the most productive investments rather than on purchases that may not increase shareholder value.

Choice of Organizational Form

The high tax on corporate income affects the allocation of capital, shifting it from the corporate sector to owner-occupied housing and the noncorporate business sector (which includes sole proprietorships, partnerships, S corporations, and nonprofit organizations). This entails an inefficient use of resources and reduces real output and incomes. The higher tax on corporate income discourages the use of the corporate form of organization despite the nontax benefits of incorporation such as limited liability and more centralized management. The corporate and the noncorporate forms may also offer different advantages with respect to scale economies and the development of entrepreneurial skill, which may not be fully exploited because of the tax distortion.

Table 5-3 shows the extent to which the current system taxes capital in the corporate sector at a higher rate than capital in other sectors, particularly the noncorporate business and housing sectors. The economy-wide effective tax rate is roughly 20 percent. However, the overall effective tax rate of between 32.2 percent and 34.5 percent in the corporate sector (depending on the treatment of intangibles) is well over half again as high as the 20.0 to 21.2 percent effective tax rate (again depending on intangibles) in the noncorporate business sector. The effective tax rate on owner-occupied housing, in contrast, is 3.9 percent. The tax penalty on income from capital in the corporate sector relative to other sectors is thus substantial.

The President's proposal to eliminate the double tax on corporate income would encourage a more productive allocation of capital. A study by the Treasury Department estimates that, even in the absence of increased investment, the long-run economic benefit of eliminating the double tax ranges from about 0.11 to 0.74 percent of consumption, or between \$8 billion and \$52 billion in 2001. Moreover, the repeal of the double tax would be expected to lead to increased investment and thus further economic gains from stronger growth and job creation.

TABLE 5-3.— *Effective Tax Rates by Asset and Sector Under Current Law and Various Reforms*
[Percent]

Asset and sector	Current law	Economic depreciation	Expensing
Corporate sector			
Equipment.....	30.5	37.9	4.4
Structures.....	38.8	37.9	4.4
Public utilities.....	29.9	37.9	4.4
Inventories.....	37.9	37.9	4.4
Land.....	37.9	37.9	4.4
Intangibles.....	4.4	4.4	4.4
Total without intangibles.....	34.5		
Total with intangibles.....	32.2	35.4	4.4
Noncorporate sector			
Without intangibles.....	21.2		
With intangibles.....	20.0	22.5	-8.8
Owner-occupied housing.....	3.9	3.9	3.9
Economy-wide average			
Without intangibles.....	20.7		
With intangibles.....	19.8	22.1	1.7

Note.—Calculations include Federal taxes only and assume a 3 percent inflation rate and a 4 percent real after-tax rate of return. Investments are assumed to be financed using 35 percent debt and 65 percent equity. Effective tax rates are capital stock-weighted averages. Calculations do not reflect the temporary 30 percent expensing provision included in the Job Creation and Worker Assistance Act of 2002.

Source: James B. Mackie III, "Unfinished Business of the 1986 Tax Reform Act: An Effective Tax Rate Analysis of Current Issues in the Taxation of Capital Income," *National Tax Journal*, June 2002.

Uniform Taxation of Investment

Another key aspect of the current tax system is that the provisions for depreciation do not provide deductions that mirror the economic lives of assets, nor do they adequately account for inflation. This divergence between depreciation as provided in the current tax code and economic depreciation is a departure from the framework of a comprehensive income tax. Table 5-3 shows how a move to economic depreciation would change effective tax rates in the corporate sector.

Revamping the current system of depreciation to more closely reflect economic depreciation would be a fundamental reform that would level the playing field across different types of business investment. However, as shown in Table 5-3, such a change would actually raise the effective tax rate on overall business investment, because it does not include the accelerated depreciation and expensing available for some investments under current law. Although

greater neutrality between types of business investments would be achieved, particularly within the corporate sector, the distortion between business investments and owner-occupied housing would be increased. Also, a system based on economic depreciation is complicated by the difficulty of frequently updating asset classes and lives to keep pace with innovation and changes in technology. Moreover, true economic depreciation would require indexing of depreciation allowances for inflation, which may contribute to complexity.

As described above, under the consumption tax model, businesses would deduct from their receipts all business expenses, including purchases of equipment and structures. Consequently, a shift to a consumption tax would involve replacing the system of depreciating investment under current law and the income tax model with complete expensing. Expensing of investment in the year it is placed in service is more generous than either current or economic depreciation for most investment, and it exempts from tax the expected cash flow from a marginal investment. With expensing, there is no tax on investment at the margin, because expensing exactly offsets (in present value) the tax on the expected future cash flow from the investment. Cash flow that arises from risk taking, inframarginal returns, and unexpected losses or gains would continue to be taxed, because it exceeds the present value of expensing. (See Box 5-3 above for a discussion of the tax treatment of these types of extraordinary returns in the case of deductible and Roth IRAs.) Expensing is needed under the consumption tax model to exclude purchases of intermediate goods from the tax base, so that only final sales to consumers, and hence consumption, are taxed.

Expensing of investment would dramatically lower the taxation of capital income. As Table 5-3 shows, it would lower the economy-wide effective tax rate on investment to near zero and virtually eliminate the tax-based disincentive to save and invest. Expensing also improves neutrality by removing tax differences between investments in the corporate and investments in the noncorporate sector.

The relative tax advantage of housing would be greatly altered under either the income or the consumption tax model. A comprehensive income tax would subject housing services to taxation, eliminating the relative tax advantage of housing and improving economic incentives, but introducing considerable complexity. Under a consumption tax, housing consumption would be taxed either by taxing the sale of newly constructed housing (that is, prepayment) or by taxing the annual flow of housing services. Housing would lose its tax advantage relative to other capital. The effect of these changes on housing prices and the housing stock is the subject of extensive debate.

Broadening the Tax Base and Lowering Tax Rates

Broadening the tax base usually means eliminating the various tax preferences under the current tax system. These preferences represent a policy decision to reduce the effective tax rate for some, but they pose a tradeoff in that a higher overall tax rate is needed under both the income and the consumption tax models to raise an equivalent amount of revenue. Eliminating preferences would improve incentives in two ways. First, as illustrated above, many of the preferences carry with them high implicit tax rates as the benefits are phased out. Eliminating these preferences repeals these high implicit rates and the associated kinks in the effective tax rate schedule. Second, once the preferences are eliminated, the same amount of revenue can be raised with lower overall tax rates. Chart 5-4 earlier in the chapter showed that the current tax base is considerably smaller than either the income or the consumption tax base.

Chart 5-4 also indicated that the existing tax preferences are just as important, if not more important, in determining the size of the tax base when saving is included as when it is excluded (that is, the difference between the comprehensive income and comprehensive consumption tax bases). The broader tax base under either reform would allow tax rates to be lowered. Lower rates improve economic incentives, spurring private activity by making more productive use of resources.

There are many avenues by which marginal tax rates can affect individual and business decisions. Individuals can shift compensation toward less taxed sources; they can adjust labor supply, saving, investment, and portfolio allocation decisions; and they can alter their compliance behavior. The economic benefits of lower tax rates were precisely the rationale behind the reduction in tax rates enacted in the Economic Growth and Tax Relief Reconciliation Act of 2001. Some estimates suggest that the reduction in the top statutory tax rate from 39.6 percent to 35 percent will raise the affected taxpayers' taxable incomes by as much as 3 percent when fully effective in 2006. This rise in taxable incomes reflects individuals' decisions to work, save, and invest more, to increase tax compliance, to reduce evasion, and otherwise to shift efforts to activities that become more lightly taxed as a result of the lower tax rates. The extent to which taxes distort these decisions is, to some extent, diminished by lower tax rates. Moreover, the rise in taxable incomes means that individuals' behavioral response to the lower tax rates works to offset the direct cost of rate reduction to the government.

Some estimates indicate that repeal of the double tax on corporate income, combined with the uniform treatment of investment and general base broadening, would increase capital accumulation by over 10 percent and output by

perhaps as much as 4 percent in the long run. A shift to a consumption tax would go even further by excluding income from saving from the tax base. Most estimates suggest that a shift to a consumption tax base would generally increase the size of the capital stock in the long run, with some estimates suggesting an increase of as much as 20 percent. Although estimates of the impact on output vary, some models indicate that real output might rise in the long run by as much as 6 percent.

Income Versus Consumption as the Base

The major difference between the consumption and income models is that a consumption tax does not distort the choice between current and future consumption (that is, saving); in other words, it is intertemporally efficient. In contrast, an income tax distorts the relative prices of current and future consumption by reducing the after-tax return to saving. Under an income tax, current consumption is tax-favored, and saving disfavored, relative to future consumption. Taxing consumption rather than income would eliminate this distortion. Because the tax base under the comprehensive consumption tax model is smaller than under the comprehensive income tax model, however (Chart 5-4), a higher tax rate would be required to raise a given amount of revenue, which may involve some degree of additional distortion. Nevertheless, as discussed above, studies indicate that elimination of the tax on income from saving can have important salutary effects on economic growth and real incomes by encouraging saving.

International Tax Considerations

The U.S. economy is increasingly linked to the world economy through trade and investment. Domestically based multinational businesses and their foreign investment help bring the benefits of global markets back to the United States by providing jobs and income. Like all firms, multinationals face a number of business decisions, including how much to invest and where. Because multinationals by definition operate in a number of countries, they also have to decide in which country to locate their headquarters, and their decisions in turn affect which countries reap the majority of benefits from the multinationals' operations.

In the context of tax reform, it is important to consider how changes in the international taxation of income would change the incentives for companies to locate production, intangible assets, and research and development in one country rather than another. Reform can have important effects on these business decisions and on the efficient use of the Nation's economic resources, affecting employment and the competitiveness of workers in the United States.

Two alternative approaches to taxing international flows of income are the territorial system and the worldwide system. Under the territorial system, individuals and businesses pay tax on income only where it is earned, regardless of where they themselves reside. (Certain passive or financial income from abroad, such as royalties, also is subject to tax in the country of residence.) Under the worldwide system, all income is subject to tax in the taxpayer's country of residence, regardless of where it is earned. Income earned abroad may also be subject to tax by the country where it is earned. On the principle that the same income should not be taxed by more than one country, foreign taxes are generally creditable against domestic tax on foreign income up to the domestic tax rate.

The United States uses a hybrid of these two systems. Resident individuals and businesses are subject to tax based on their worldwide income. For foreign subsidiaries of U.S. multinational companies, tax is usually paid only when income is distributed to the domestic parent company as a dividend; that is, tax is deferred until repatriation, at which time a credit can be claimed for foreign taxes paid. It is primarily the opportunity of tax deferral of certain active income that distinguishes the tax treatment of international income by the United States from a pure worldwide system. Deferral has the effect of relieving a substantial portion of the U.S. tax, in present value terms, on the income of foreign subsidiaries of U.S. companies. However, because tax is imposed upon repatriation, there is a disincentive to repatriate foreign income; this disincentive is absent under a territorial system.

The rules surrounding deferral are the source of considerable complexity, involving a bewildering assortment of definitions and rules. Deferral is extended to income from active business operations abroad in order to provide an equal footing with other operating businesses in the same foreign country. Deferral of U.S. tax is not extended to income from portfolio investments and other income viewed as highly mobile. Consequently, certain income from portfolio-type foreign investments (for example, interest, dividends, and royalties) is "deemed distributed" and is subject to current U.S. tax. However, such income also includes various categories that are more active than passive, such as foreign base company sales and services income, income from shipping, and certain income from oil activities.

The foreign tax credit requires companies to make complex calculations in order to claim the credit against the U.S. tax on repatriated dividends. The foreign tax credit is calculated by "basket" or type of income (for example, passive, financial services, and general active income) so that excess credits generated on highly taxed active foreign business income cannot be used to reduce the U.S. tax on lower taxed foreign income such as passive interest. Over the past 30 years, U.S. companies have repatriated roughly half of the after-tax income earned by their foreign subsidiaries.

The U.S. system of taxing international income dates back to the 1960s, when the United States was the source of half of all multinational investment worldwide, produced 40 percent of the world's output, and was the world's largest capital exporter. From this perspective it was appealing to construct a tax system that was viewed as neutral with respect to the location of foreign investment by taxing all income and taxing it all at the same rate. However, this system is based on the idea that investment abroad is a substitute for domestic investment and on the assumption of perfectly competitive markets in a world with aggressive pricing and ease of entry, and with no brand-name loyalty, economies of scale, or other sources of extraordinary profits.

The underpinnings of the worldwide system have shifted, however. It is now recognized that most multinational corporations produce differentiated products and compete in industries characterized by economies of scale, thereby undermining the perfect competition model of the past. There is some evidence that returns on foreign investment surpass those on domestic investment and exhibit above-normal returns because of factors such as intangibles (brands, patents, and the like). Moreover, the United States is now the world's largest importer of capital and no longer dominates foreign markets. For example, in 1960, 18 of the world's 20 largest companies (ranked by sales) were located in the United States, but by the mid-1990s that number had fallen to 8. Companies can choose where to locate, and, under the worldwide system of taxation, unless the domestic tax rate is the same in all countries in which a company operates, the decision where to locate the company's headquarters will be affected by the countries' tax systems.

There is some concern that the United States has become a less attractive location for the headquarters of multinational corporations. Although multinationals operate in a number of countries, the Department of Commerce reports that the bulk of the revenue, investment, and employment of domestic multinational companies is located in the United States. In 1999 U.S. parent companies accounted for about three-fourths of U.S.-based multinationals' sales, capital expenditure, and employment. Therefore, where a firm chooses to place its headquarters will have a large influence on how much that country benefits from its domestic and international operations.

The United States is also one of only a few industrialized countries (Switzerland and the Netherlands are other prominent examples) that do not provide some form of integration of the corporate and individual income tax systems. The resulting double taxation of corporate income makes it more difficult for U.S. companies to compete against foreign imports at home, or in foreign markets through exports from the United States, or through foreign direct investment.

Another major choice in international taxation, and one that is particularly important under the consumption tax model, is that between the so-called destination and origin principles. Under the destination principle, imports are

taxed by making them nondeductible or by levying an import tax, and exports are tax-exempt. The tax base then includes all domestic consumption, whether goods and services are produced at home or abroad. Under the origin principle, the opposite rule applies: exports are taxed, but imports are not, and the tax base becomes consumption plus net exports. Either the origin or the destination principle can be applied under a consumption tax, but the destination principle has the intuitive appeal of promoting economic growth domestically by exempting, and thereby promoting, exports.

Nevertheless, under a flat-rate consumption tax, the origin and the destination principle are equivalent at the margin. Under the destination principle, again, foreign investment is essentially expensed, and the cash flow from the investment is taxed as imports. The tax benefit of expensing will exactly equal in present value the tax on the expected normal return of the investment as it returns through imports. Under the origin principle, taxes are essentially prepaid by taxing exports, and no tax is due on the returning cash flow. Returning profits would thus be taxed under the destination principle, but not under the origin principle. The timing of the tax payment will be different, but in present value terms the taxes paid under the destination principle and under the origin principle will be the same for an equivalent level of exports. This is similar to the equivalency between deductible IRAs and Roth IRAs discussed in Box 5-3. The equivalency does not necessarily hold, however, in the presence of extraordinary returns (returns to innovation, inventions, ideas, and risk taking). The returning extraordinary profits would be taxed under the destination principle, but not necessarily under the origin principle. It is also important to note, however, that the tax on the returning cash flow under the destination principle could be avoided if a taxpayer is able to relocate abroad. Such a taxpayer would receive the benefit of the export exemption (expensing) and might avoid the tax on the returning cash flow (imports) through relocation. Under the origin principle, in contrast, the tax cannot be avoided because it is, in effect, prepaid.

Conclusion

Changes in tax policy involve many different objectives and can take many different forms. This chapter has focused on the primary choices involved in tax reform and the major differences among taxing consumption, taxing income, and maintaining the current hybrid tax. Proposals for tax reform pose the difficult question of how best to balance the sometimes competing objectives of simplicity, fairness, and faster long-term growth. Policy changes can improve efficiency and boost real incomes, but it also matters enormously that all Americans have the opportunity to achieve economic success.