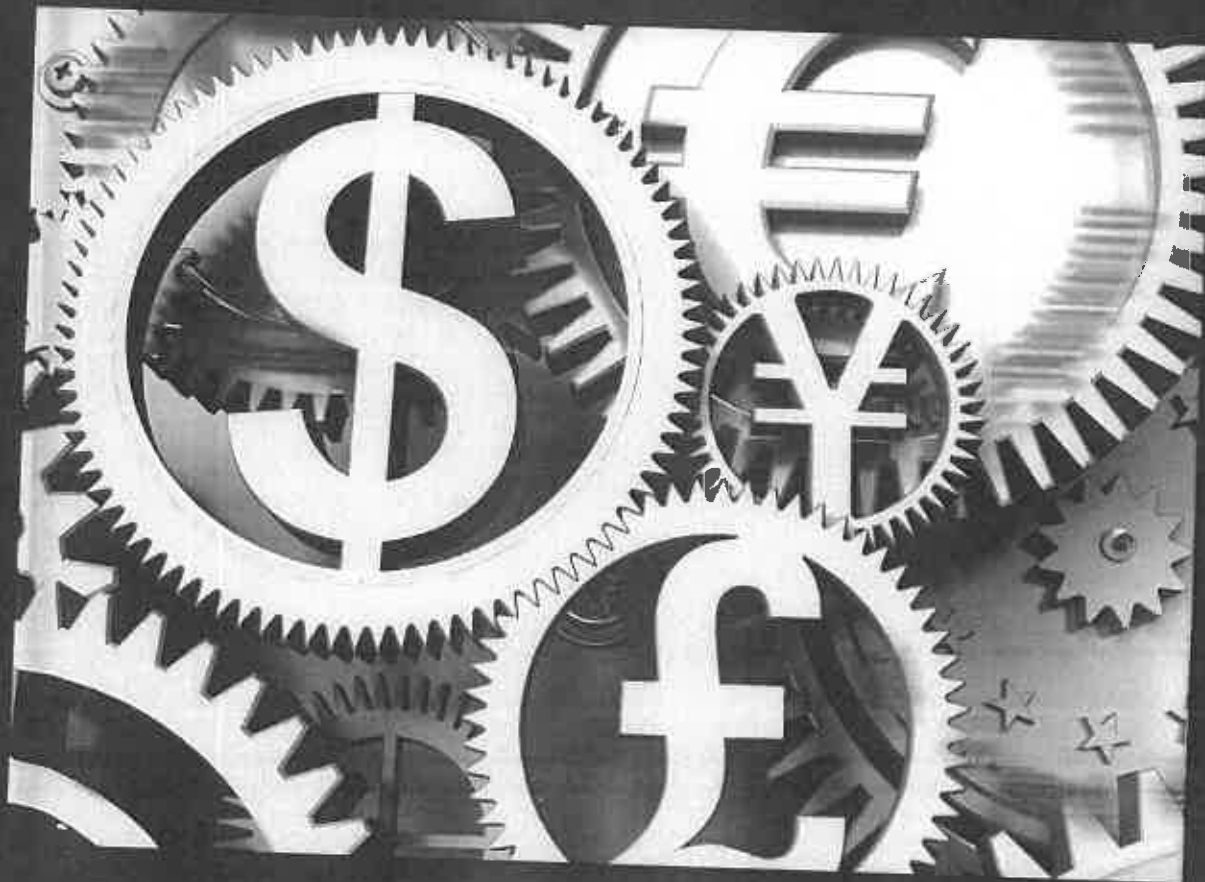


Public Budgeting Systems

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each of these taxes focuses on such characteristics as their adequacy as a revenue source, their fairness, ease of collection and so forth, and on the mechanics of how the tax base and tax rates are determined.

Principles of Taxation

A chief concern that public officials have for any tax is the extent to which that tax will generate adequate revenue to fund the services provided by the government. The major revenue sources used by governments—income taxes, property taxes, and sales taxes—are used in large part because the number and value of taxable events or the value of the base are so large and therefore have the potential to generate so much income. There are other reasons, aside from the adequacy of revenue, however, to choose one particular revenue source over another. These can include the equity (or fairness) of the revenue source, the extent to which the revenue source distorts economic choices, the cost of administering the tax, and the political feasibility of particular revenue sources.

Adequacy of Revenue

Not all revenue sources have the same potential for growth. In general, as an individual's wealth or income goes up, he or she tends to demand more from government. For this reason, governments should avoid sources of revenue that do not have the potential to grow as fast as income or wealth. In addition, as noted above, some sources of revenue can produce large amounts of income for the government at relatively low rates, because of the sheer size of the tax base. To illustrate these points, consider the federal income tax and taxes on cigarettes. The federal income tax runs off a large tax base, and because of its progressive rate structure, higher levels of income are taxed at higher rates. A tax on cigarettes, on the other hand, runs off a relatively smaller base (sales of cigarettes) and demand for cigarettes does not tend to grow with income. For this reason, the progressive income tax is a much more productive revenue source than the cigarette tax. On the other hand, taxes on cigarette sales do not generate nearly as much controversy among a majority of voters and, therefore, may be more attractive to lawmakers.

In addition to the sheer size of the base, it is important for tax policymakers to take into account the potential of the tax base to respond to changes in tax rates. For many taxes, as tax rates increase, they discourage engaging in the taxed activity. Thus, a higher sales tax increases the price of goods (thus decreasing the amount of goods sold) and high marginal income tax rates may encourage some individuals to choose "leisure" over work, at least at the margin. A recent study confirmed the existence of this relationship between tax rates and the tax base for a range of taxes in North Carolina.¹ Conversely, where demand for a given good is

"inelastic" (that is, where demand does not respond to price) an increase in the tax rate is much less likely to discourage consumption. This tends to be true, for example, of the cigarette tax, since many people are addicted to the good in question. The important implication for the adequacy of revenue is that behavioral responses to taxes must be factored in when doing revenue estimates, lest these estimates overstate the amount of revenue that will be generated for a given tax rate.

Equity

As important a question of how much money is going to be raised from a tax is the question of who will pay that tax. In fact, the question of "who pays" is often the central question of taxation. Consider the debate in the 2000 presidential election between George W. Bush and Al Gore. Both candidates, faced with a projection of large and rising budget surpluses, advocated tax cuts. Candidate Bush, however, advocated tax reductions that were more heavily targeted toward higher-income people (who pay the majority of federal income taxes) than candidate Gore, who advocated tax cuts more targeted toward lower-income Americans. The debate here was not about which tax to cut, or even necessarily about how much to cut it, but about who would benefit from those reductions.

There are two general principles of tax equity. The first is the ability to pay principle, which says that the taxpaying capacity of different taxpayers should be taken into account in designing the tax system. The second is the benefit principle, which says there should be some relationship between the benefits received by the taxpayer and taxes paid.

Ability to Pay. Different taxpayers have different levels of income and wealth, and therefore may have different capacities to bear the cost of financing government.² One sense of equity relates to the ability to pay principle. A tax should be related to the taxpayer's income or wealth or, more generally, to the taxpayer's ability to pay the tax. A taxpayer who can afford to pay more should pay more. Some consider that equitable. This principle implies that a tax imposes the same loss of utility for each taxpayer, or as economists refer to it, the *equal absolute sacrifice*.³ Equity has both horizontal and vertical dimensions.

Horizontal Equity. Horizontal equity refers to charging the same amount to different taxpayers whose ability to pay (usually measured by income levels) is the same. If two taxpayers are the same on relevant dimensions, and they pay different levels of tax, that tax would violate the principle of horizontal equity. That can occur, for example, because the way a tax is administered may erroneously identify two taxpayers as being the same, when in fact they are different. This can be a particular problem for the property tax, because the level of tax paid is usually a direct function of assessed values of property. If two parcels are erroneously val-

the same, however, when in fact one could sell for more on the market, then two taxpayers are being treated as if they are the same, when they in fact are quite different. It is important to note that whether two taxpayers are "the same" is frequently in the eye of the beholder. If two taxpayers have the same level of income, for example, but one is supporting a family of five on that income while the other is a single taxpayer with no dependents, simply differentiating tax paid on the basis of income fails to account for real differences in ability to pay. In this case, a tax that appears to be horizontally equitable may not be at all.

Vertical Equity. While there is nearly universal agreement that horizontal equity should be adhered to, vertical equity is a somewhat harder principle on which to gain consensus. Put simply, vertical equity has to do with "treating different taxpayers differently." Normally, this implies knowledge of how a given tax affects different people, or income groups, in the society. Vertical equity is normally measured by computing the *effective tax rate*, which is computed by dividing the tax paid by a given individual by some measure of wealth or income. The computation of the effective tax rate can yield conclusions that a given tax, or tax system is:

- *Progressive*, if effective tax rates are higher for higher income taxpayers than for lower income taxpayers;
- *Proportional*, if effective tax rates are essentially the same across different income categories; or
- *Regressive*, if lower income taxpayers experience higher effective tax rates than higher income taxpayers.

Knowing whether a tax is progressive, proportional, or regressive involves knowing more than just the tax rate. For example, a sales tax on purchases seems to treat all taxpayers equally but is often actually regressive in that poorer families may spend a greater proportion of their incomes on taxed items than wealthier families do.

Most people would argue for tax systems that are either proportional or progressive. But even if there is general agreement that a tax system should be progressive (as is generally true for the federal income tax), this does not mean that there is agreement concerning *how* progressive the tax should be. Since debates about progressivity are actually debates about the portion of the tax burden to be borne by different taxpaying groups, they are important and can create substantial controversy.

Overall, the entire U.S. system of revenue, at the national level, is progressive, but that masks some variation by revenue source. While the federal income tax is quite progressive, the payroll tax (for Social Security and Medicare) is actually regressive, because there is an income ceiling above which Social Security taxes are not paid. The revenue system cannot be judged independently of certain gov-

ernment programs. Transfer payments, such as various forms of aid to poor families, are somewhat like "negative" taxes in their effect and increase the progressivity of the tax and transfer system considered together.

A Congressional Budget Office study of the incidence of federal taxes—individual income, social insurance, corporate income, and excise taxes—found that, in 2003, the highest quintile (the one-fifth of households earning the most incomes) experienced an overall effective tax rate of 25% for all federal taxes. This compared to 17.7% in the next highest quintile, and only 4.8% for the lowest quintile. While the individual and corporate income taxes are even more progressive than the overall system, both excise taxes and social insurance taxes tend to be more regressive.⁴ Another measure of the level of progressivity of the federal individual income tax is illustrated by the fact that households in the top quintile paid 85% of all income taxes in 2003. This was the main reason that these same taxpayers paid two-thirds of all federal taxes in the same year.⁵

Benefit Received. Another concept to keep in mind is that of benefit received. Some revenue is derived from payments by recipients for services rendered or benefits received. User charges or fees are notable examples, as in municipal parking garage fees, bus fares, and water and sewer charges. People who park in the garage pay for that service. The principle of payment for services results in an efficient allocation of public sector resources, because people will use only the amount of a particular service for which they are willing to pay. This process is similar to the way in which the private market works. That is, the private market produces no more of those goods than people are willing to purchase.

However, if all government services were paid for by fees, some people would be unable to pay and necessarily would be excluded. Elementary and secondary education, for example, is the most expensive local government service. If government provided this service entirely by charging parents and students the cost of providing education, many parents would be unable to send their children to school. This situation would lead to large segments of the society being uneducated and unable to secure employment that required the ability to read, write, and the like. Because of the *spillover effects* (the fact that lack of education would adversely affect others in the society), many government services cannot be appropriately supported solely through user fees.

In addition, the public supports education for equity reasons. Everyone should have access to at least some level of education regardless of their ability to pay for it. Similarly, public goods have positive *externalities*—that is, they benefit all citizens regardless of whether one actually uses the service. Education, for example, benefits the entire community by making it more attractive to businesses making location decisions, and it benefits the entire economy by increasing the

productivity of the work force. The benefit received principle simply cannot be applied uniformly to all government services.

Moreover, particular taxes may be structured to permit the overall tax system to better adhere to the benefit principle. For example, the State of Florida has a sales tax but no income tax. This permits substantial taxation of visitors to the state to obtain revenue from individuals who are causing state services to be provided, but might otherwise not pay the cost of any of these services. Tourists would not pay income taxes were the state to have one, yet tourists impose burdens on government services. Therefore, sales taxes help to make tourists pay for the costs they impose. Of course, tourists not only generate costs, but also generate jobs and income for Florida. If the state were to impose what was perceived as onerous sales tax rates, that might drive tourists away to other states.

The problem of nonresident service provisions is also the justification for nonresident income taxes (so-called commuter taxes) in many metropolitan areas, which tax income earned in a jurisdiction, even by nonresidents, as a means of exacting payment from them for services provided.

Economic Efficiency

According to the related concept of efficiency, an efficient tax is one that does not appreciably affect the allocation of resources within the private sector, such as between consumption and saving or among competing items for consumption. Taxes on alcohol, for example, seem to have no appreciable effect on consumption of alcoholic beverages. However, taxes can be used for regulatory purposes, as opposed to purely efficient revenue-raising purposes. Increased taxes on tobacco have been shown to reduce smoking among youth, precisely as intended.⁶ Other tax provisions that exclude some items from taxation, such as selected tax deferrals on personal income saved for retirement, are designed to influence behavior and may not be neutral or simply efficient. Tax systems that are progressive can be inefficient and have unintentional consequences. If tax rates are particularly high for wealthy persons, for instance, then the system may encourage them to spend more time on leisure and less on working and earning more income. In many European countries, that effect, encouraging people to spend more time on leisure and less on purely income-earning activities, might be perceived as a positive outcome of the tax.

Tax system design generally tries to consider both equity and efficiency objectives. Use of taxes to regulate behavior, as in increased tobacco taxes, is generally not considered in the overall design of a tax system, but rather is typically legislated separately. Extensive research has focused on how to consider both principles simultaneously while developing optimal tax structures that are designed to achieve an optimal balance between efficiency and equity objectives.⁷

Cost of Administration

Generally, taxes that are expensive to administer should be avoided. Money spent to collect taxes represents a net loss to society, and therefore, the less spent on tax administration, the better. There are a number of specific costs associated with tax collection. Some costs are to the government, some to the taxpayer, and some to an intermediary, such as the shopkeeper who collects the sales tax. The individual income tax, for example, may be relatively cheap for the government to administer (given the level of revenue produced), but it can be quite costly for individuals to comply with all of the specific requirements of reporting income and calculating taxes owed. These high compliance costs occur primarily because of the complexity of the tax system. But this complexity, in part, represents the cost of attempting to promote equity. Most of the allowable deductions and credits for the federal income tax, for example, stem from attempts to adjust the tax to allow for individual taxpayer conditions.

On the other hand, there are taxes where the cost of compliance is relatively low, but the cost of initial collection by the government is high. Consider the case of the local property tax. Because the government is obliged to place a value on properties, it needs to expend substantial resources to identify the level of taxes required to be paid and to collect those taxes in the first instance.

In addition to the cost of initial collection, there is the separate cost to the government of enforcement. Enforcement tends to be more difficult and costly in cases where the laws and rules surrounding the revenue source are complex, and where the responsibility for initial collection (for determining the level of tax to be paid) lies with the taxpayer. Thus, the income tax is relatively costly to enforce, while the property tax is much less costly. In the latter case, there is much less room for interpretation by the taxpayer—the amount is not normally in dispute. (Chapter 10, on budget execution, includes a section on tax administration that goes into greater detail on particular techniques and issues.)

Political Feasibility

Even taxes that score well on adequacy, equity, efficiency, and ease of administration still may fall short if they cannot be raised in the current political environment. States without an income tax will probably find it almost impossible to enact one, despite whatever other appeals such a tax may have. Tobacco-growing states probably will find it difficult to raise cigarette taxes, while such taxes may be relatively appealing in states that do not grow tobacco. In fact, it is not surprising that there is wide variation in the per pack tax rates in different states. For example, Virginia and Kentucky, which are major tobacco-growing states, taxed

cigarettes at 30 cents per pack in 2005. On the other hand, Rhode Island taxed them at \$2.46 per pack and Washington State at \$2.03 per pack.⁸

Income, Payroll, and Property Taxes

Many of the major revenue sources used by governments are based on income or wealth—property values being the primary wealth that is taxed in the U.S. to generate revenue. These bases are partially desirable because they are large; a relatively large amount of revenue can be raised at relatively low rates. They are also used because it is easy to adjust the tax to individual taxpayer conditions; that is, those taxpayers with relatively higher incomes have a relatively greater ability to pay taxes. Similarly, taxpayers with a great deal of property wealth may be viewed as having an extraordinary ability to pay, though that is not necessarily true for the elderly, who may have a valuable residence but after retirement have much less income with which to pay the tax. The major revenue sources in this category are the personal income tax, the corporate income tax, the payroll tax (primarily used for Social Security and Medicare), and the property tax.

The Personal Income Tax

The income tax is a relatively recent, but important, addition to the revenue sources used by governments. Until the passage of the 16th amendment to the Constitution, ratified in 1913, the taxation of income was not permitted in the United States. Since that time, the income tax has become the most important revenue source for the federal government, in addition to being an important source for many state and local governments. By tradition and for convenience, state and local income taxes tend to operate in a way that is similar to the federal income tax, albeit with very different rate structures. For this reason, this section describes the structure of the federal income tax system, and then discusses briefly the particular characteristics of state and local personal income tax systems.

Income taxes, in general, have the following structure:

1. The computation of income (in the case of the federal income tax, *adjusted gross income*, or AGI), which is the initial calculation of the tax base.
2. Reductions to adjusted gross income because of individual taxpayer characteristics. These take the form of *deductions* (standard or itemized) or *exemptions* (for the taxpayer and dependents).
3. The application of *tax rates* (graduated in the case of the federal income tax) to taxable income, which is the result of AGI minus deductions and exemptions.
4. Reductions in the tax paid as a result of *tax credits*, which are dollar-for-dollar reductions in taxes paid.

Computing Adjusted Gross Income. Not all income is taxed. In the case of the federal government, decisions have been made about precisely which types of income should be subject to taxation and which should not. Economists have historically embraced a very broad definition of income, called the *Haig-Simons definition*, which defines income as any increase in an individual's potential ability to consume.⁹ This includes some of the income used in the federal definition, including salaries, wages, commissions and tips, dividends, interest, rents, alimony, and unemployment compensation. Excluded from the federal definition, however, are most employee benefits (such as employer-provided health insurance and contributions to pension funds), disability retirement, workers' compensation, food stamps, and interest earned on some state and local bonds. This arguably advantages people who have more of the excluded income. For example, two individuals whose adjusted gross income is the same may in fact be not equally well off, if one of them is being provided a subsidy by his employer for health insurance and retirement benefits (not counted in adjusted gross income, and therefore not taxed), while the other is not. For this reason, the more sources of income included in the tax base, the more equitable the income tax. When the base excludes sizable segments of income, vigorous debates immediately arise over whether some interests are receiving undue favoritism as a result of legislative lobbying.¹⁰

Tax codes also provide for adjustments to gross income that typically have the effect of removing portions of income from the base. For example, the federal tax code excludes expenses for moving to accept a new job, some job-related educational expenses, and some employer-paid business reimbursements. The result of the components of income that are included (above), less these adjustments, becomes the base from which exemptions and deductions are subtracted, or adjusted gross income.

Exemptions and Deductions. Individual exemptions and deductions may further reduce the individual income tax base. Exemptions are reductions to the tax base that literally result from existence. If you file income taxes, you can claim yourself as an exemption. Moreover, however, the more dependents that a taxpayer claims on his or her return, the more exemptions, and therefore, the greater the dollar amount from exemptions. In 2006, the federal exemption was \$3,300 for most taxpayers. This means that a married couple filing jointly could claim \$6,600 in exemptions. If they had three children, that rose to \$16,500. There is one caveat to this. As a result of changes to income tax laws in 1993, the personal exemption is reduced for higher income taxpayers (those who are married filing jointly with incomes greater than \$110,000 in 2006, for example) and are eventually phased out entirely.

More important than exemptions for many people are deductions. Each taxpayer is permitted to claim a *standard deduction* without providing any documentation. This standard deduction varies according to the filing status of the taxpayer.