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CHAPTER 2 Welfare Effects of Selective Taxation: Economic Efficiency as a Normative Principle

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y dean once lightheartedly complained that, for all the numerous occasions in which controversial tax policies were proposed and debated, he struggled to find among his own public finance faculty any significant level of disagreement. This was not for a lack of ideological diversity, as we spanned the usual range of Democrats and Republicans along with libertarian interlopers. Certainly, we disagreed about the appropriate levels of taxation and the degree to which the government should intervene in the economy. Yet he was entirely correct that we seldom disagreed on specific proposals that appeared in tax policy debates, at least not to the degree that allowed the dean to hold an exciting forum.

This chapter seeks to explain why there seems to be considerable opposition to selective taxation despite many substantive philosophical differences. The next section overviews how economic efficiency provides the prima facie case for uniformity principles in taxation. The third section provides labels for the major "tax philosophies" and employs some examples of actual tax policies considered in these perspectives. The major takeaway is that while each philosophy might allow for selective taxes under specific conditions, actual tax policy frequently caters to special interests, and as a result policies take on features of selective taxation that meet widespread objections. The consequence is that a broad deference to uniform tax principles exists even when economic efficiency is not the dominant concern.

SELECTIVE TAXATION AND EFFICIENCY IN CONTEMPORARY ECONOMIC THEORY

The first part of this chapter seeks to provide the reader with a background on how taxation is considered in terms of economic theory. Uniform ad valorem taxation (i.e., taxing all goods and services at identical percentage rates) reproduces the efficiency outcomes otherwise observed under a poll tax.¹ As the conditions that uphold this conclusion erode, so strengthens the case to be made for selective taxation (i.e., taxing selected goods and services at non-uniform rates), albeit as a less than ideal solution.

Efficiency and the Prima Facie Case against Selective Taxation

Economics attributes special significance to the choices made by households in their purchases of goods and services. The default perspective is that consumer choices reflect their own value judgments within a budget constraint, and that to coerce them into choosing differently would be to make them worse off. When households are producers, it is similarly regarded that their choices reflect their own assessment of the most efficient means of producing a good or service in the face of many competing constraints. These inferences are important components of what is referred to as the First Fundamental Theorem of Welfare Economics, which is frequently taken to mean that these choices are "allocative efficient," so a policymaker cannot improve the standing of one household without leaving others worse off. Selective taxation of particular goods and services therefore induces special harm to people by disturbing the allocations of resources across households.

The significance of allocative efficiency can be illustrated by a pair of numerical examples. Suppose we observed a consumer at a baseball game with \$7 to spend on beer, pretzels, and nachos. Each of these goods provides satisfaction, or "utility," that is measured in units called "utils." The buyer experiences utility with each purchase, but at a diminishing rate. For example, beer in its first serving increases the consumer's happiness (i.e., marginal utility) by 120 utils, whereas the second serving increases it by only 100 utils. Nachos,

	Marginal Utility per Dollar		
Item (Price)	Beer (\$1)	Pretzels (\$1)	Nacho (\$1)
First	120	90	70
Second	100	75	60
Third	80	60	50
Fourth	60	55	40
Fifth	40	40	30

Table 1. Marginal Utility by Unit of Consumption

by comparison, increase happiness by 70 utils in their first serving and 60 utils in their second. For simplicity, start from the assumption that the consumer can buy any of these goods for \$1 per piece, so that marginal utility per dollar is the same as marginal utility, and this pattern of positive but diminishing returns is presented in table 1.

A consumer who seeks to maximize their total utility with the preferences in table 1 subject to a budget of \$7 will choose a mix of goods that can be understood if one thinks about spending down the budget \$1 at a time. Based on table 1, the consumer should spend their first dollar on a serving of beer, which yields the highest marginal utility (120 is greater than 90 or 70). In spending their second dollar, they could have their second beer, their first pretzel, or their first nacho. The second beer yields greater marginal utility (100) than either the first pretzel (90) or first nacho (70), so they should again buy another beer. In the third dollar, it is the first pretzel that offers the highest marginal utility (90) rather than either the third beer (80) or first nacho (70). We can proceed in this fashion through the \$7 budget. Table 2 summarizes the consumer's expenditures dollar by dollar through \$7, at which point the consumer could buy any of the three goods and receive 60 additional utils. The final allocation of the budget results in this consumer having purchased three beers, two pretzels, one nacho, plus any one extra of the three offerings, which results in total utility of 595. Indeed, there is no alternative way to spend \$7 that yields a greater level of utility for this consumer.

Now imagine that a 100 percent tax was levied on beer, raising the consumer's effective price from \$1 to \$2, while the other goods go untaxed. Marginal utility per dollar is halved for beer but unchanged for the others. Table 3 updates these calculations of marginal utility per dollar, and we can repeat the exercise of sequentially determining each dollar of spending so long as the items are within the budget constraint. The first pretzel offers the highest marginal utility per dollar, increasing the consumer's satisfaction by 90 utils. The second pretzel also offers more marginal utility per dollar (75) than the

Dollar Spent	Choice	Utility Gain
First	Beer	120
Second	Beer	100
Third	Pretzel	90
Fourth	Beer	80
Fifth	Pretzel	75
Sixth	Nacho	70
Seventh	Any/Indifferent	60

Table 2. Consumer's Optimal Choice

Bundle: three beers, two pretzels, one nacho, plus one of any choice. Total utils: 595

Table 3. Marginal Utility by Unit	of Consumption	
		-

	Marginal Utility per Dollar		
Item (Price)	Beer (\$2)	Pretzels (\$1)	Nacho (\$1)
First	60	90	70
Second	50	75	60
Third	40	60	50
Fourth	30	55	40
Fifth	20	40	30
First Second Third Fourth Fifth	60 50 40 30 20	90 75 60 55 40	70 60 50 40 30

Table 4. Consumer's Optimal Choice

Dollar Spent	Choice	Utility Gain
First	Pretzel	90
Second	Pretzel	75
Third	Nacho	70
Fourth to seventh	One beer, one pretzel, and one nacho	240

Bundle: one beer, three pretzels, and two nachos. Total utils: 475

first beer (60) or first nacho (70). The first nacho yields the highest marginal utility for the third dollar spent. At this point, all items have the same marginal utility (60), and acquiring them will spend out the remainder of the \$7 budget. As demonstrated in table 4, the consumer's bundle under the 100 percent beer tax is one beer, three pretzels, and two nachos that in sum yield 475 total utils of satisfaction. Note also that, since the consumer purchased one beer, tax revenue to the government is \$1.

Comparing these two bundles is quite revealing in how the patterns of consumption have changed—notably, as beer becomes the least acquired

good instead of the most. The \$1 of tax revenue has resulted in utility losses of 595 - 475 = 120 utils. This is a significant loss of utility compared to a simple \$1 tax on the individual (also known as a poll tax), which would have left the consumer's prices unchanged and allowed the consumer to maximize on the marginal utility per dollar values that appeared in table 1. Under a \$1 poll tax, the consumer would have the same pattern of consumption as in table 2, except that the seventh dollar would be lost to tax revenue and the consumer's utility would be reduced by just 60 utils to 535. By selectively applying the tax to a single good, the selective tax lost an additional 535 - 475 = 60 utils beyond what would have been lost under a poll tax with the same revenue. These additional utility losses beyond the poll tax are regarded as the excess burden of the selective tax structure.

Importantly, it can be shown that a uniform ad valorem tax is equivalent to the poll tax. With a little bit of algebra, an ad valorem tax that increased the price of all goods to approximately \$1.167 will result in the consumer purchasing the same pattern as the no-tax scenario in table 2 before running out of money on the sixth purchase.² The tax revenue after buying three beers, two pretzels, and one nacho would be \$1, and the total consumer utility would be 535, the same as in the case of the poll tax. As a result, the uniform ad valorem tax structure has no excess burden, because the utility losses are identical to those of a poll tax. This realization that uniform tax rates are equivalent to poll taxes provides the prima facie case against selective taxation in economics.

Taxation on Business-to-Business Sales Violates Uniformity

Economic theory recognizes household consumption as the basis for selecting what should and should not be taxed under a system of uniform taxation. In the practice of tax administration, many taxes are collected at point of sale (i.e., where ownership of the good is transferred). Certain sales, however, do not reflect household consumption and are instead business-to-business (B2B) sales. Purchases of energy, fuel, machinery, and equipment are all examples of potential B2B sales. B2B sales should not be taxed, as they do not represent a point of final consumption; instead they are goods or services that will be used to some other end. A sales tax that includes these B2B exchanges results in what is commonly referred to as "tax pyramiding" or "tax cascades." That is, the tax on a B2B sale of inputs that are used to produce a good sold to a household embeds the earlier tax into the apparent pre-tax price. This creates further distortions as producers seek to make their goods with a greater proportion of untaxed inputs. Furthermore, B2B taxation incentivizes vertical integration of the production process, as a firm that makes rather than buys its inputs can gain a competitive cost advantage because of an artifact of the tax code. Through tax pyramiding in the pre-tax prices and distorting the firm's make-or-buy choices, the incorporation of B2B into the tax base represents a violation of uniformity in taxation.

Extensions That Weaken the Case for Uniform Taxation

The First Fundamental Theorem of Welfare Economics implies a presumptive case against selective taxation. It is also the starting point for the majority of normative theories on tax policy. Broadly speaking, these considerations come in three strands: (1) equity concerns, (2) market failure violations of the First Fundamental Theorem, and (3) government failure in applying uniform tax administration.

Resource distribution and equity concerns are absent from the First Fundamental Theorem, and as a result, theory justified on its basis is subject to criticisms for this neglect. Progressive income taxation is sometimes motivated, for example, by considering that higher income consumers may have lower marginal utility of income. The arguments for progressive taxation also support the proposition that income-inelastic goods that occupy a large fraction of low-income households' budgets relative to those of high-income households might justify lower rates of taxation on equity grounds.³ This proposition is obviously antithetical to uniform ad valorem taxation (which, as mentioned before, is mathematically equivalent to a single flat rate on the flow of income and other net gains in wealth).⁴ To dodge this efficiency-equity tradeoff, a small cottage industry of academic research known as "tagging" has emerged. Tagging consists of identifying features of the population that are strongly correlated with the ability to pay but do not affect the choice to earn.⁵ If the circumference of the skull, for example, were a strong indicator of intelligence and ability, a tax based on skull circumference would likely be progressive but free of the excess burden associated with the distortion of choice.

As stated before, the First Fundamental Theorem of Welfare provides the framework for regarding undistorted choices as determining the optimal allocation of resources. Relaxing assumptions that go into this theorem, however, open the possibility that individual choices do not represent optimal outcomes and thereby increase the prospect for interventions. These assumptions include the following:

- 1. Perfectly competitive markets, so that prices reflect true consumer valuations and resource costs;
- 2. Externalities, or third-party spillover effects, in consumption or production of the good or service;
- 3. Complete, perfect, and symmetric information about the goods and services exchanged; and
- 4. Rational consumers in the sense that they are capable of making utilitymaximizing choices in the face of budget constraints.

Examples where selective taxation is motivated by the violation of one or more of these assumptions are commonplace throughout this book and so will not be extensively addressed here. The main takeaway is that certain goods might be selectively targeted for taxation on the grounds that the tax will lead consumers to behave as if they were satisfying the conditions of the assumptions. For example, if beef is more pollutive than other types of meat, then a well-structured tax would cause consumers to adjust the amount of their budget allocated to meat consumption in a manner that would mimic their accounting for the harm caused by the pollution.

Another argument for selective taxes arises when the government fails to appropriately define the tax base by either ignoring services or taxing business inputs. In the United States, for example, state legislation governing taxation generally applies to finished goods rather than to final household consumption. Consider the case where a retailer acquires a cash register in furtherance of their profit, so while the cash register is "finished," it is also a business input. Likewise, many household services go untaxed. It is estimated that states apply the retail sales tax to about 40 percent of household consumption and that business purchases represent a little more than 40 percent of taxable sales.⁶ An approach known as "Ramsey Rule taxation" can motivate a selective taxation approach to partially compensate for leaving services untaxed, and it can also motivate the taxation of B2B sales.⁷ A haircut at a barbershop may go untaxed, but the business inputs like scissors, chairs, and creams could be taxed under the general sales tax and ultimately lead to a condition more strongly resembling conditions described in the First Fundamental Theorem of Welfare than if the business inputs were left untaxed.⁸

Although selective taxation is seldom considered a first-best approach, theory provides ample support for giving it serious consideration in the messy real world. It also highlights the need for substantive theories of public choice to determine what kind of tax system might be delivered in different political systems. As Winer and Hettich (1998) argue, allowing for deviations from uniform taxation might incentivize self-interested politicians in a representative democracy to equalize the marginal political cost rather than the marginal excess burden implied by the optimal selective taxation models provided by the Ramsey (1927) rule. It also highlights the need for carefully performed empirical studies to weigh in on the sizes and magnitudes of the various distortions of selective tax systems.

OPTIMAL TAX SYSTEMS BY MAJOR PHILOSOPHIES

The remainder of this chapter advances a more challenging thesis, which is that there is frequently strong agreement against selective taxes. The selective excises explored elsewhere in this book tend to emphasize the more popular and defensible forms of selective taxation. However, a larger spectrum of proposed and existing selective taxes lack such support. Although the motivation and rationale for objecting to these taxes differ, they implicitly or explicitly accept efficiency arguments against tax systems that distort choices. The chapter appendix provides an illustrative sampling of these criteria,⁹ and a similar perspective is summarized by Mirrlees et al. (2011) in an overview of the variety of tax design features observed around the world that they believe to command near-universal support:

for a given distributional outcome, what matters are:

- the negative effects of the tax system on welfare and economic efficiency—they should be minimized;
- administration and compliance costs—all things equal, a system that costs less to operate is preferable;
- fairness other than in the distributional sense—for example, fairness of procedure, avoidance of discrimination, and fairness with respect to legitimate expectations;
- transparency—a tax system that people can understand is preferable to one that taxes by "stealth."

As we shall see below, simple, neutral, and stable tax systems are more likely to achieve these outcomes than are complex, non-neutral, and frequently changing systems. But simplicity, neutrality, and stability are desirable because they promote these ultimate outcomes, not in their own right. (Mirrlees et al. 2011, 22–23)

Selective taxes add complexity and violate neutrality and, as Mirrlees et al. (2011) note, come into conflict with other transparency and nondistributional fairness concerns. For this reason, most tax ideologies tend to oppose choicedistorting taxes even when economic efficiency is of little or no concern. To begin, I identify three tax philosophies for the strict purpose of providing a useful taxonomy for evaluating tax policies from these different perspectives. Few people likely identify according to tax philosophies in the way they do with political ideologies, but specific tax policy proposals tend to reflect at least one of the following views:

- 1. Utilitarians: Taxes should be allocated in a manner that maximizes social welfare according to some notion of collective well-being. Mainstream welfare economics follows in this tradition, which was outlined in the previous section, and is often associated with Paul Samuelson and A. C. Pigou.
- 2. Beneficiarians: Tax burdens should fall on those who benefit from the spending, with public services levied on a willingness-to-pay principle. A perfectly developed benefit principle system is one where taxes function like prices in the allocation of resources across markets. User fees for government services, property taxes for local schools, and gasoline taxes to fund highway maintenance are all common examples of public revenues raised according to the benefit principle. The related academic literature in this field frequently cites Erik Lindahl for its origins.
- 3. Contractarians: In this chapter, "contractarians" will be used to refer to those who prefer tax systems that would be acceptable or otherwise emerge from a socially acceptable process that respects individual rights. A Rawlesian tax system would be a tax system that everyone would agree to if they stood behind a "veil of ignorance" of their actual social position, which is a popular criterion among many progressives. Buchanan (1976) advocated a tax system whose evolution is governed by a democratic procedure in which improvements are made through negotiation and agreement in a fashion that avoids undue fiscal exploitation. Buchanan's view of a strict "fiscal constitution" has been widely adopted in libertarian circles.

The root of agreement across these perspectives lies in the likely role of special interests in formulating actual tax policy. The dominant theory of special interest groups in economic policy is that they seek to create concentrated benefits for their relatively small group at a cost that is diffused across a large group of actors. Tax policies formulated under such pressure likely result in outcomes that deviate from what anyone operating under these perspectives would adopt. Selective taxes can benefit a special interest by either exempting them from the broader tax or by creating disproportionate taxes on their competitors (Holcombe 1998). Allocating tax rates according to political cost rather than efficiency cost will deviate from most designs preferred by utilitarians. By diffusing costs and concentrating benefits, special interest objectives are diametrically opposite those favoring benefit principles. By circumventing broadly democratic processes for fiscal exploitation, tax policy for special interests violates the tendency to favor uniformity seen among contractarians.

To illustrate the application of this process, I use three examples of actual tax policies. The cases are chosen specifically because they are relatively easy to argue against under any of the ideologies, presuming that everyone agrees on the empirical facts.

Example: Kansas 2012 Exemption of Pass-through Income

Even before President Trump's administration began proposing similar elements in its 2017 tax plans, the Kansas 2012 tax reform was widely regarded as one of the most controversial state tax reforms of recent decades.¹⁰ The plans attracted attention because of their proposed reduction of personal income tax rates and consolidations of tax brackets that aimed to considerably reduce the state's general tax revenues and require spending cuts. The argument over progressivity and scope of government is predictably divisive on ideological grounds, but another major component of the reform included the complete exemption of pass-through income from the personal income tax base. The exemption of pass-through income was in stark contrast to arguments over rates and progressivity, as this element was broadly condemned by the major tax analysis think tanks.¹¹

The widespread criticism of the reform is based on its selectivity. Many "small businesses" (e.g. sole proprietorship, partnerships, certain S-corporations) have owners who must report their own salaries as a business expense in calculating profits. Typically, the profits are then passed through (added to) the salary of the owners for the purpose of calculating personal income taxes. Prior to the reform, the personal income tax did not treat differently that portion of business owners' incomes derived from pass-through and that portion attributable to their salaries. After the reform, the effective personal income tax rate on the pass-through portion was zero in Kansas, and was a significant windfall of tax savings to taxpayers who filed for income taxes on Schedule C or E. It also offered a competitive advantage to individuals payed by contractor income (1099-MISC) or as employees (W-2). That is, the tax code began providing a cost advantage to firms that hired a janitorial services LLC to replace an in-house custodian staff, and to law and accounting firms that promoted employees to partners.

From a utilitarian prospective, these incentives imply investment and business decisions being redirected for advantages in the tax code (i.e., an inefficient distortion of economic activity). A process- or rights-oriented perspective might ask whether this approach to the tax system would be considered acceptable to someone uncertain as to whether they would be paid by W-2 or 1099-MISC. Nor does there appear to be any expectation that the beneficiaries of the tax exemption are reconciling some better alignment with their imposed costs in the public sector. Indeed, the tax selectively targets relatively wealthy taxpayers with organized business activities.¹²

Example: Per Unit Taxes

A common alternative to ad valorem sales taxes is to levy a tax on a per unit basis.¹³ At first blush, it might appear as if this would be an efficient tax if implemented in a uniform manner. However, it is widely believed that doing so distorts choice along the dimension of quality. For example, high-quality coffee may be regarded as a distinct good from low-quality coffee, and consequently the pre-tax prices differ. If a coffee tax of \$1 per cup were levied, those lower end brands that sold for \$0.25 pre-tax are more likely to be declined by consumers than are the coffee brands that originally sold for \$5.

While the distortion of choice explains the utilitarian efficiency argument against per unit taxes, per unit taxes are also sometimes regarded as an implicit form of protectionism that caters to specialized interests or the wealthy. An interesting historical example is described by John Nye (2007) in *War, Wine, and Taxes*, which explores the political economy of British-French trade in the eighteenth century. Nye argues that producers of low-quality wine out of Portugal, to which the British had exclusive export rights, were threatened by expanding trade with France following the conclusion of the War of the Spanish Succession in 1713. To protect these producers, Britain erected a large, volume import tariff on French wine that effectively wiped out the availability of low-end French wine for the British masses and did comparatively less harm for the higher end wine consumption of the wealthy British elites.

Once again, there is no corresponding service for which the payers of this tariff can be regarded as beneficiaries. It is also difficult to see how a tax that so disproportionately harms a large group of consumers in favor of a small group of wealthy elites would find support among the social contract or processoriented contractarian tax philosophies. Replacing the per unit tax with an ad valorem rate would enhance efficiency and would adhere to a principle of uniformity that would be more likely to find supporters among tax philosophies.

Example: Sales Tax Holidays

Some states have specific days of the year in which the sale of particular items (e.g., clothing, energy, computers, or guns) is exempt from taxation (figure 1). The motivation for these policies is typically some mix of providing welfare assistance and encouraging consumption. Although these sales tax holidays are popular among retailers and their customers, it is difficult to find a tax expert who thinks they represent good public policy. In fact, special reports from both the left-leaning Institute on Taxation and Economic Policy and the right-leaning Tax Foundation have heavily criticized these policies.





Source: Federation of Tax Administrators. 2016. "2016 Sales Tax Holidays." Updated July 25, 2016 (http://www.taxadmin.org/2016-sales-tax-holidays).

Like any selective tax, sales tax holidays imply that the revenue raised could have been achieved with lower rates on a base that was neutral to the consumer's choices on goods and timing of purchases. If sales taxes are general funds, as they typically are, for public services, then there is little relationship to ability to pay or benefit principles of this temporary tax relief. It is also poorly targeted welfare, whose gains are possibly captured by a narrow set of retailers.¹⁴ As a tax policy, it resembles a government taking an active role in encouraging the consumption of very specific goods. Once again, this practice appears more consistent with a political process conferring specialized favors and is therefore antithetical to contractarian concerns.

CONCLUSION

This chapter demonstrated the prima facie economic case against selective taxation in favor of uniformity. The economic efficiency gains from uniform taxation are widely accepted as being close to the first-best structure of a tax in the sense that a uniform tax produces no burdens in excess of what would be realized under a poll tax. The concept that taxes should be neutral with respect to economic choices is one that reaches broadly across different tax philosophies, even though efficiency/neutrality is just a single dimension of a broader and more diverse set of policy criteria. Although certain groups may explicitly value other dimensions as being of more substantive concern, in practice, actual tax policies and proposals that advance selective taxation are often roundly criticized. In other words, the various perspectives on how taxes should be structured seldom demonstrate much disagreement over the failings of existing or proposed tax policy. This broad criticism is plausibly due to the effectiveness of special interests using selective taxation as an opportunity to create concentrated benefits with widespread costs, resulting in policies that lack a rationale that is supported in these different tax philosophies.

NOTES

- 1. On hearing the term "poll tax," many American readers may immediately think of the Jim Crow South, where some states required that voters make a payment known as a poll tax before they were allowed to vote. However, in economics a poll tax (also known as a head tax) is a uniform tax that is imposed on every individual.
- 2. More specifically, the ad valorem tax rate would actually be $100 \times (1/6)$ percent for the arithmetic to be equal.
- 3. See Diamond (1975) for an example of such a model.
- 4. See Haig (1921), Simons (1938), and Kaldor (1955) for discussion.

- 5. See Akerlof (1978) and Cremer et al. (2010) for the origins of and recent contributions to tagging.
- 6. For discussions of these estimates, see Ring (1999) and Mikesell (2012).
- 7. The "Ramsey Rule" is in reference to a theory of optimal commodity taxation by Ramsey (1927), which has resulted in a substantive literature of variations on this original model. The so-called rule is generally known as levying taxes inversely to the consumer's price elasticity. That is, the more price sensitive consumers are to a good, the lower the tax on that good if one seeks to minimize excess burden for a given public revenue requirement.
- 8. This insight falls in the general domain known in economics as "the theory of the second best" (Lipsey and Lancaster, 1956–1957), the main principles of which demonstrates that distortions may offset one another under the correct circumstances.
- 9. A sampling of other examples of tax policy criteria offers support for the universality of these principles. The appendix includes such a sampling from well-known progressive economist Joseph Stiglitz, the right-leaning Tax Foundation, the left-leaning Institute on Taxation and Economic Policy, and the classically liberal Adam Smith.
- 10. For example, see the news story about the contrasts between the Trump and Kansas plans in Weissmann (2017).
- 11. The Tax Foundation produced numerous blog posts, reports, and other statements against the pass-through exemption. A recent summary of their views can be found in testimony by Drenkard and Henchman (2017) to the Kansas House Committee on Taxation, in which they contrast the exemption against their tax policy criteria. The Institute on Taxation and Economic Policy similarly produced many such documents, albeit focusing mostly on the regressivity of the reform. Nevertheless, they frequently targeted the pass-through exemption (e.g., see Gardner 2017) as violating their "tax neutrality" standard for uniformity in taxation.
- 12. See Leachman and Mai (2014) for a revenue and distributional impact analysis.
- 13. Per unit taxes are less common in general sales taxation because they raise difficulties in administratively defining the unit of the different goods and services.
- 14. For empirical work on this aspect of sales tax holidays, see Ross and Lozano-Rojas (2017).

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APPENDIX

Sampling of Tax Policy Criteria

In the following samples, the criteria against selective taxation appear in italics.

Joseph Stiglitz (2000, 458)

1. Efficiency: The tax system should not be distortionary; if possible, it should be used to enhance economic efficiency.

- 2. Administrative simplicity: The tax system should have low costs of administration and compliance.
- 3. Flexibility: The tax system should allow easy adaptation to changed circumstances.
- 4. Political responsibility: The tax system should be transparent.
- 5. Fairness: The tax system should be, and should be seen to be, fair—treating those in similar circumstances similarly, and imposing higher taxes on those who can better bear the burden of taxation.

John L. Mikesell (2011, 350-53)

- 1. Revenue adequacy: The ability of the tax to raise revenues at socially acceptable rates.
- 2. Equity (horizontal and vertical): Equity in taxation arises from similar taxpayers receiving similar tax bills (horizontal), and whether the amount of the tax changes with the ability of the taxpayer to bear the burden of taxation (vertical).
- 3. Economic effects: Minimizing the distortion of choices made by households and firms in the economy.
- 4. Collectability: Minimizing the burden of public and private resources devoted to administering the tax and collecting the revenue.
- 5. Transparency: There should be consistency in the design of the tax so that the rules applied the government provide clear guidance to tax authorities, taxpayers, and third parties in defining how a tax will be calculated.

Adam Smith ([1776] 1904, V.2.24-28)

- 1. The subjects of every state ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state.
- 2. The tax which each individual is bound to pay ought to be certain, and not arbitrary. The time of payment, the manner of payment, the quantity to be paid, ought all to be clear and plain to the contributor, and to every other person.

- 3. Every tax ought to be levied at the time, or in the manner, in which it is most likely to be convenient for the contributor to pay it.
- 4. Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the state.

Tax Foundation's (2015) "Principles of Sound Tax Policy"

- 1. Simplicity: Administrative costs are a loss to society, and complicated taxation undermines voluntary compliance by creating incentives to shelter and disguise income.
- 2. Transparency: Tax legislation should be based on sound legislative procedures and careful analysis. A good tax system requires that taxpayers be informed and understand how tax assessment, collection, and compliance works. There should be open hearings, and revenue estimates should be fully explained and replicable.
- 3. Neutrality: Taxes should not encourage or discourage certain economic decisions. The purpose of taxes is to raise needed revenue, not to favor or punish specific industries, activities, and products.
- 4. Stability: When tax laws are in constant flux, long-range financial planning is difficult. Lawmakers should avoid enacting temporary tax laws, including tax holidays and amnesties.
- 5. No retroactivity: As a corollary to the principle of stability, taxpayers should be able to rely with confidence on the law as it exists when contracts are signed and transactions are completed.
- 6. Broad bases and low rates: As a corollary to the principle of neutrality, lawmakers should avoid enacting targeted deductions, credits, and exclusions. If tax preferences are kept to a minimum, substantial revenue can be raised with low tax rates. Broad-based taxes also produce relatively stable tax revenues from year to year.

Institute on Taxation and Economic Policy's (2011, 5) "Important Tax Policy Principles"

1. Equity: Does your tax system treat people at different income levels, and people at the same income level, fairly?

- 2. Adequacy: Does the tax system raise enough money, in the short run and the long run, to finance public services?
- 3. Simplicity: Does the tax system allow confusing tax loopholes? Is it easy to understand how your state's taxes work?
- 4. Exportability: Individuals and companies based in other states benefit from your state's public services. Do they pay their fair share?
- 5. Neutrality: Does the tax system interfere with the investments and spending decisions of businesses and workers?