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NEW DIRECTIONS IN TEACHING AND RESEARCH

IN THE GREEN CLASSROOM—TAX POLICY OF ENVIRONMENTAL TAX RULES AND INCENTIVES: NEW DIRECTIONS IN TEACHING AND RESEARCH

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INTRODUCTION

There is no shortage of tax rules that address energy and natural resources in some manner. There are taxes on most types of fuel, tax credits for energy saving devices, and various tax incentives to encourage specified activities such as use of LED lighting or energy efficient heaters. In addition, numerous proposals are offered annually by lawmakers at the federal, state and local levels that also address conservation, energy and innovation in conservation and energy-efficiencies.

How do we know if existing rules and proposals are appropriate for a tax system? Principles of good tax policy can be applied to them to identify strengths, weaknesses and how to improve the rules and proposals. This article explains the principles of good tax policy, provides an example of their application and makes several suggestions of how this type of analysis can be incorporated into any classroom learning on green building topics. This exercise is not only for students with tax knowledge, but also engineers, scientists, architects, environmentalists, as well as everyone in our roles of citizen and voter.

KEYWORDS

tax policy, tax reform, transparency, tax preferences, environmental tax rules, environmental tax incentives

PRINCIPLES OF GOOD TAX POLICY

Principles of good tax policy have existed for centuries. Government agencies, state tax reform commissions, tax professionals, and others have emphasized the need for guideposts to best ensure that tax systems are workable and fair. To this end, these groups have assembled sets of principles of good tax policy. This section provides background on various formulations of sets of tax policy principles. Examples are offered along with ideas for using this type of analysis in any course dealing with the environment, energy and conservation.

Background

Tax systems work best when their design considered simplicity, efficiency, and the ability to generate the desired amount of revenue, among other principles. Since at least the late 1700s

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with Adam Smith's treatise, *The Wealth of Nations*, economists, lawmakers and others have considered his four canons of taxation:

1. Equity
2. Certainty
3. Convenience of payment
4. Economy in collection

Since Smith's time, lawmakers, economists, accountants and lawyers, have expanded the canons or principles beyond the four. The Government Accountability Office (GAO) used five principles described as "criteria for a good tax system," in its 2005 report on understanding tax reform. The GAO criteria:

1. Equity
2. Economic efficiency
3. Simplicity
4. Transparency
5. Administrability

The National Conference of State Legislatures (NCSL) promotes a set of nine principles to ensure a "high-quality state revenue system." The American Institute of Certified Public Accountants (AICPA) has a set of 12 principles.

Among various ways that principles of good tax policy are organized and detailed, there are similarities, such as all address equity, simplicity and administrability. One reason for some variations might exist due to the role the drafters play in the tax system (such as legislators versus tax practitioners). For example, the NCSL principles include the need for state and local tax systems to be complementary. That is, each level of government (state and local) needs to consider the effect a tax change at one level can have on the other level. For example, in California, the state and local governments must use the same sales tax base. If the state legislature enacts a sales tax exemption for solar heaters, it must realize that local governments will collect less tax and might not have a way to make up for the lost revenue. Thus, the state should consider not exempting the local government share of sales tax on such heaters or provide funds to local governments to address the revenue loss.

In contrast, the formulation of principles of good tax policy drafted by the AICPA includes tax compliance (return preparation and tax payments) considerations. For example, one of the twelve principles is information security. That is, there must be ways to protect sensitive taxpayer data such as Social Security numbers, in the tax filing process.

A comparison of various formulations of the principles as used by various state tax commissions and others can be found in *Policy Approach to Analyzing Tax Systems* (see reference section below).

AICPA Principles of Good Tax Policy

The AICPA's set of principles is the focal point for the exercises suggested in this paper. This set is comprehensive, readily accessible, and includes factors noted by others although the wording or groupings may differ. In evaluating tax rules and proposals, the details provided in the GAO, NCSL and AICPA documents should be used to obtain a deeper understanding of each principle.

Following are the twelve principles as summarized in the AICPA principles document.

1. *Equity and Fairness.* Similarly situated taxpayers should be taxed similarly.
2. *Certainty.* The tax rules should clearly specify how the amount of payment is determined, when payment of the tax should occur, and how payment is made.
3. *Convenience of Payment.* Facilitating a required tax payment at a time or in a manner that is most likely convenient for the taxpayer is important.
4. *Effective Tax Administration.* Costs to collect a tax should be kept to a minimum for both the government and taxpayers.
5. *Information Security.* Tax administration must protect taxpayer information from all forms of unintended and improper disclosure.
6. *Simplicity.* Simple tax laws are necessary so that taxpayers understand the rules and can comply with them correctly and in a cost-efficient manner.
7. *Neutrality.* Minimizing the effect of the tax law on a taxpayer's decisions as to how to carry out a particular transaction or whether to engage in a transaction is important.
8. *Economic Growth and Efficiency.* The tax system should not unduly impede or reduce the productive capacity of the economy.
9. *Transparency and Visibility.* Taxpayers should know that a tax exists and how and when it is imposed upon them and others.
10. *Minimum Tax Gap.* Structuring tax laws to minimize noncompliance is essential.
11. *Accountability to Taxpayers.* Accessibility and visibility of information on tax laws and their development, modification and purpose, are necessary for taxpayers.
12. *Appropriate Government Revenues.* Tax systems should have appropriate levels of predictability, stability and reliability to enable the government to determine the timing and amount of tax collections.

Further explanation of each principle can be found in the full report (see reference list at the end of this article for how to obtain the AICPA report, as well as the GAO and NCSL documents).

In the following example, the twelve principles are presented in the form of questions. A yes answer indicates the principle is met. The chart used in the example is suitable to use for completing your own tax policy analysis.

Example

In this example, the principles of good tax policy are applied to a California law that excludes "active solar energy systems" from treatment as newly constructed property that would otherwise increase the property taxes on a building. That is, installing this equipment will not result in additional property taxes even though it increases the value of the building.

This tax benefit is provided in California's Revenue and Taxation section 73, which is about 1,100 words long. The length is due to various restrictions on what qualifies as "active solar energy systems." The basic definition of "active solar energy systems" per the statute is "a system that, upon completion of the construction of a system as part of a new property or the addition of a system to an existing property, uses solar devices, which are thermally isolated from living space or any other area where the energy is used, to provide for the collection, storage, or distribution of solar energy." The term "does not include solar swimming pool heaters or hot tub heaters."

A special provision allows the buyer of a new building to obtain the exclusion if the builder did not use or occupy the building and received no exclusion for the same "active solar energy system." The buyer must have purchased the building before it became subject to reassessment to the builder. The buyer must provide documentation to the assessor to show the value of the excluded property relative to the entire building so the assessor can determine the proper base (building value at acquisition less the value of the "active solar energy systems") upon which property taxes are assessed. The value of the solar system must first be reduced by any rebate the buyer received from the Public Utilities Commission or any state agency or power company. Thus, any such rebate received reduces the value of the solar system and increases the base upon which property taxes can be assessed for the rest of the building.

This exclusion is a temporary provision in the law and expires after 2024. In the following analysis, the exclusion is referred to as the solar exclusion.

Criteria	Does the proposal satisfy the criteria? (explain)	Result
Equity and Fairness—Are similarly situated taxpayers taxed similarly? Consider the tax effect as a percentage of the taxpayer's income for different income levels of taxpayers.	If two different taxpayers each purchase a building for the same price, the property tax values are the same and each owner has identical property tax liabilities. However, if one of the buildings has an "active solar energy system," that owner will have a lower property tax liability. Assuming these owners are similarly situated in that each purchased a building for the same price and they have the same income, the solar exclusion does not treat the owners similarly. The solar exclusion causes the owner without the solar property to use a higher percentage of its income to pay the tax relative to the owner with the solar property.	Not met.
Certainty—Does the rule clearly specify when the tax is owed and how the amount is determined? Are taxpayers likely to have confidence that they have applied the rule correctly.	Rev. and Tax. Section 73 is complicated due to its definitions and special rules. The administering agency also has a 27-page set of guidelines to help county assessors administer the tax (see the reference list at the end of this chart). Thus, there can be uncertainty as to whether the property qualifies for the exclusion or if the owner qualifies. However, in some situations, such as an existing owner installing property that clearly meets the definition, there is certainty.	Not met in all fact patterns.
Convenience of payment—Does the rule result in tax being paid at a time that is convenient for the payor?	The solar exclusion does not change the date that property taxes are due. Instead, it just reduces the amount of tax owed.	No effect.
Effective Tax Administration—Are the costs to administer and comply with this rule at minimum level for both the government and taxpayers?	Due to the complexity of the relevant statute and the need for a 27-page set of guidelines, as well as the need for certain buyers to justify their exclusion amount with the assessor, there are costs to administer the solar exclusion. Also, if the value of property goes down, a reassessment occurs. If the property has an "active solar energy system," additional calculations are necessary to determine the decline in assessed value because the value of the "active solar energy system" must also be considered.	Not met.

Criteria	Does the proposal satisfy the criteria? (explain)	Result
Information Security—Will taxpayer information be protected from both unintended and improper disclosure?	The rule does not require any additional information to be provided beyond what is required for any property owner.	Met.
Simplicity—Can taxpayers understand the rule and comply with it correctly and in a cost-efficient manner?	Similar to the issues noted earlier for "certainty," there are some situations where it may not be clear if the building owner qualifies for the solar exclusion and if yes, the amount of the exclusion and effect on the assessed value of the building.	Not entirely met.
Neutrality—Is the rule unlikely to change taxpayer behavior?	The purpose of the solar exclusion *is* to encourage building owners to use "active solar energy systems" because doing so will reduce the owner's property tax liability. Note: While this principle is not met for this rule, it was intentionally violated by lawmakers who had reasons to encourage property owners to change their behavior.	Not met (intentional decision of lawmakers).
Economic growth and efficiency—Will the rule not unduly impede or reduce the productive capacity of the economy?	It is possible that the tax savings (and likely energy cost savings) of having an "active solar energy system" will help the economy. Those using the exclusion will pay less tax which can then be used for other purposes. Also, the rule may lead to increased production of "active solar energy systems" which might help promote economic growth.	Met.
Transparency and Visibility—Will taxpayers know that the tax exists and how and when it is imposed upon them and others?	Taxpayers are likely to know of the solar exclusion because sellers of these systems will promote awareness of the rule as it will help increase their sales. The state's energy department is also likely to promote the exclusion as are utility companies.	Met.
Minimum tax gap—Is the likelihood of intentional and unintentional non-compliance likely to be low?	When an "active solar energy system" is installed in a building, building permits are likely required which alerts the county assessor that the property is being improved. That act generally leads to a reassessment of the value of the building for property tax purposes. If the property owner can show that an "active solar energy system" was installed, the assessor won't increase the property tax bill. Because property tax owners do not reduce property tax bills on their own for exclusions, the chance of misusing the law are minimal.	Met.
Accountability to taxpayers—Will taxpayers know the purpose of the rule, why needed and whether alternatives were considered? Can lawmakers support a rationale for the rule?	More information is needed as to the research that was used to lead lawmakers to determine that a property tax exclusion was necessary for "active solar energy systems." Did they have information indicating that owners would not invest in such energy saving systems without a credit? Also, other possible incentives could have been used once the lawmakers determined that an incentive is needed so that owners would be more likely to buy an "active solar energy system." Alternative incentives include a direct grant to the buyer of the system, an income tax credit, or a sales tax exemption.	Not clear (more information needed).

Criteria	Does the proposal satisfy the criteria? (explain)	Result
Appropriate government revenues—Will the government be able to determine how much tax revenue will likely be collected and when?	The government should be able to find sufficient information as to the cost of "active solar energy systems" and how many building owners are likely to install such a system. Thus, the government should be able to determine the amount of reduced property tax assessments.	Met.

The result of the analysis is that the solar exclusion meets most of the principles of good tax policy. Yet, two principles not met are often viewed as very important—equity and simplicity. Ideas can be generated for how these principles might be met. For example, perhaps there is no need for exceptions to the definition of an "active solar energy system" which should better enable the exclusion to meet the simplicity principle. To help improve equity, the solar exclusion could be replaced with an income tax credit that is only available to building owners below a specified income level so that the benefit helps taxpayers who need it more than others. That is, it doesn't provide a tax break to higher income taxpayers and not to lower income ones.

Resources for the rule analyzed in the example:

- Rev. & Tax. Section 73—https://tinyurl.com/y8b9tn6h
- California Board of Equalization, *Guidelines for Active Solar Energy Systems New Construction Exclusion* (2012)—http://www.boe.ca.gov/proptaxes/pdf/lta12053.pdf
- Dsire website, "Property Tax Exclusion for Solar Energy Systems" for California—http://programs.dsireusa.org/system/program/detail/558

The Complete Exercise

Before applying the twelve principles to an existing rule or proposal, the rule or proposal must be reviewed and understood. For an existing rule, in addition to reading the statutory provision, additional helpful documents include congressional committee reports tied to the enacting legislation, regulations, any court cases where the operation of the rule was at issue, and articles by practitioners and academics. This summary of the rule should proceed the principles analysis, as was done in the example.

The exercise should conclude with an analysis of what the results in the far right column mean. For principles not met, remedies should be offered with an explanation of why they would improve the rule or proposal.

Benefits

The benefits of performing an analysis of whether a tax rule or proposal meets the principles of good tax policy include the following:

- *Obtain better understanding of a rule:* An opportunity is presented to learn more about a tax rule or proposal because a strong understanding of how the rule works and its purpose is necessary in performing the tax policy analysis.
- *Identify how to improve a rule:* For any principles not met, the tax policy analysis highlights where attention should be paid and the types of improvements that would make the rule more workable.

- *Allows comparisons using common factors:* Applying the tax policy analysis to several proposed ways to meet a particular goal can serve as helpful comparisons.
- *Objective focus:* The principles of good tax policy offer an objective approach to analyzing proposals. Their use forces both opponents and supporters of a particular tax rule or proposal to not just say "I don't like it" or "it's great" but to instead have language and criteria to use to justify their views. The principles can lead to more focused and objective discussion of proposals.

Cautions

It is unlikely that every tax rule or proposal will equally meet all twelve principles of good tax policy. Thus, some weighing of the results is often necessary. For example, if one or two principles are not met, they might be viewed as important enough for a particular proposal, to find it inappropriate. This is often the case where a provision is overly complex. Simplicity is an important principle because if a rule is too complex, it might not get used or be used incorrectly including being claimed by some taxpayers it was not intended to apply to.

Another caution in focusing on tax rules is that a conclusion might be that we find ways to improve the tax rule. However, not all energy incentives have to be administered through the tax law. It is helpful to also consider non-tax alternatives for any goal found desirable or necessary. This can even be added to the exercise at the end: What non-tax alternatives exist and would they be better than the tax rule or proposal analyzed?

SOURCES FOR EXERCISES

There are many sources for rules and proposals to analyze against the principles of good tax policy. These include:

- Searching in the federal, state or local level statutes for provisions that address energy and environmental matters. A web search can also lead to these provisions.
- Congress and state legislators have webpages that allow for searching of legislative proposals.
- State tax agency websites often have lists and summaries of the energy and green incentives offered, as well as links to the relevant tax forms. The AICPA has a list of links to state tax agency websites (https://www.aicpa.org/research/externallinks/taxesstatesdepartmentsofrevenue.html).
- Various websites that report and consolidate information on energy and green incentives. Examples:
  - The federal government's energy star website: https://www.energystar.gov/about/federal_tax_credits.
  - DSIRE, a database maintained by NC Clean Energy that lists numerous tax and other incentives offered by the federal, state and local governments for energy conservation: http://www.dsireusa.org/.
  - Plant Connection, Inc.: http://myplantconnection.com/green-roofs-legislation.php.
- Develop you own proposals to critique.

VARIATIONS FOR ADDITIONAL COURSE ACTIVITIES

The tax policy analysis can be expanded beyond the completion of the worksheet used in the earlier example. Additional activities include:

- Students can debate whether a proposal with mixed results should be enacted.
- Contact the lawmaker who introduced the proposal to see if he or she or staff would like to receive your tax policy analysis or meet with you to discuss it.
- Hold a mock legislative hearing on the proposal with some students assigned as the lawmakers to ask questions and others serving as witnesses with some presenting opposing arguments and others testifying in support. Watch a recording of a congressional hearing first to get a sense of how a hearing operates (or if you live near Washington, D.C. or your State Capitol, watch a hearing in person).
- Look for groups that support or oppose the proposal you are analyzing to find out why.
- For a proposal that modifies an existing statute, insert the changes into the statute using track changes to be sure you best understand how the changes work.

CONCLUSION

Principles of good tax policy offer a valuable and respected approach for understanding and critiquing any tax rule or proposal. The example offered in this article is in a format useful for any analysis. The references provide additional background to further understand each of the principles. Finally, while many people might think they do not have sufficient tax knowledge to perform the critique, this should not be an obstacle. There are reliable government and tax-related websites that might offer insights on how a tax rule or proposal works. For existing tax rules, instructions to tax forms also helps.

The tax policy analysis is a valuable exercise for better understanding any of the hundreds of energy tax provisions in existence today as well as the numerous proposals offered by lawmakers and others annually.

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BIOGRAPHY

Annette Nellen, CPA, CGMA, Esq., is a professor in and director of San José State University's graduate tax program (MST), teaching courses in tax research, accounting methods, property transactions, employment tax, ethics, leadership, and tax policy.

Professor Nellen chairs the AICPA Tax Executive Committee and serves on the AICPA Tax Reform Task Force. She is a former chair of the ABA Tax Section's Sales, Exchanges & Basis

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Professor Nellen has testified before the House Ways and Means Committee, Senate Finance Committee, Senate Small Business and Entrepreneurship Committee, California Assembly Revenue & Taxation Committee, and tax reform commissions and committees on various aspects of federal and state tax reform.

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