

# Assessing the Theory and Practice of Land Value Taxation



RICHARD F. DYE AND RICHARD W. ENGLAND

# Assessing the Theory and Practice of Land Value Taxation

Richard F. Dye and Richard W. England

## Policy Focus Report Series

The policy focus report series is published by the Lincoln Institute of Land Policy to address timely public policy issues relating to land use, land markets, and property taxation. Each report is designed to bridge the gap between theory and practice by combining research findings, case studies, and contributions from scholars in a variety of academic disciplines, and from professional practitioners, local officials, and citizens in diverse communities.

## About this Report

The Lincoln Institute has long been interested in the writings of Henry George, who advocated land value taxation in his book, *Progress and Poverty* (1879). The Institute has sponsored numerous studies of land value taxation and related topics, and in 2009 published the book-length analysis, *Land Value Taxation: Theory, Evidence, and Practice*. Richard F. Dye and Richard W. England, the editors of that volume, summarize its research findings in this report and present recommendations for local policy makers considering alternative property tax measures.

## Dedication

This analysis of land value taxation is dedicated to the memory of C. Lowell Harriss (1912–2009), professor of economics emeritus at Columbia University, and a long-time proponent of policies that would support land taxation approaches. He was an associate of the Lincoln Institute of Land Policy from its earliest days as an educational institution, and he served on its board of directors for many years. His scholarship and dedication to research on public finance had a profound influence on the authors, and many, many others.

Copyright © 2010 by Lincoln Institute of Land Policy.

All rights reserved.



113 Brattle Street

Cambridge, MA 02138-3400, USA

Phone: 617-661-3016 x127 or 800-526-3873

Fax: 617-661-7235 or 800-526-3944

Email: [help@lincolninst.edu](mailto:help@lincolninst.edu)

Web: [www.lincolninst.edu](http://www.lincolninst.edu)

ISBN 978-1-55844-204-7

Policy Focus Report/Code PF025

# Contents



**2 Executive Summary**

**4 Chapter 1: Property Tax Reform: The Good, the Bad, and the Ugly**

**7 Chapter 2: The Case for Land Value Taxation**

- 7 Efficiency Advantages
- 8 Burden on Landowners
- 8 Speculation and the Timing of Development
- 11 Sprawl and the Density of Development
- 11 Revenue Adequacy
- 12 Summary



**13 Chapter 3: U.S. and International Experiences**

- 13 U.S. Experiences
- 16 International Experiences
- 16 Summary



**17 Chapter 4: Evaluating the Evidence on Land Value Taxation**

- 17 Statistical Comparisons
- 19 Types of Models and Studies
- 22 Summary



**23 Chapter 5: Legal and Assessment Challenges**

- 23 State Constitutional Issues
- 24 Assessment and Administrative Concerns
- 25 Summary

**26 Chapter 6: The Politics of Adopting Land Value Taxation**

- 26 Current Views and Practices
- 27 Lessons from Past Experience
- 28 Tax Reform Winners and Losers
- 29 Summary



**30 Chapter 7: Conclusions and Recommendations**

**32 References**

**33 About the Authors, Acknowledgments, and About the Lincoln Institute of Land Policy**



# Executive Summary



## **Bucks County, Pennsylvania**

**T**he land value tax is a variant of the property tax that imposes a higher tax rate on land than on improvements, or taxes only the land value. Many other types of changes in property tax policy, such as assessment freezes or limitations, have undesirable side effects, including unequal treatment of similarly situated taxpayers and distortion of economic incentives. Land value taxation would enhance both the fairness and the efficiency of the property tax.

Raising the tax rate on land has few undesirable effects, while lowering the rate on improvements has many benefits. Land is effectively in fixed supply, so an increase in the tax rate on land value will raise revenue

without distorting the incentives for owners to invest in and make use of their land. By contrast, the part of the property tax that falls on structures or other improvements discourages investment. The burden of the tax on land falls entirely on landowners, who have no opportunity to shift the tax to others (such as renters). The land value tax is neutral with respect to the choice of when to develop a parcel and the density of its development, whereas the taxation of improvements is likely to increase low-density sprawl.

More than 30 countries around the world have implemented land value taxation, so it is not a utopian proposal. In the United States,



experience with land value taxation dates back to 1913, when the Pennsylvania legislature permitted Pittsburgh and Scranton to tax land values at a higher rate than building values. A 1951 statute gave smaller Pennsylvania cities the same option to enact a two-rate property tax. While most municipal governments in the state have not adopted two-rate taxation, and a few have tried and then rescinded it, about 15 communities currently use this type of tax program.

The State of Hawaii also has experience with two-rate taxation, and in recent years the Commonwealth of Virginia and State of Connecticut have authorized a few municipalities to choose a two-rate property tax, though none of those communities has yet adopted it.

There is strong theoretical support for land value taxation, in particular for reducing the tax on real estate improvements, and real-world experience offers evidence that has been used to test the economic theory supporting the land value tax. A number of studies have attempted to draw statistical comparisons between jurisdictions with and without land value taxation, or before and after the adoption of a land tax, although the results are generally inconclusive.

Legal and assessment challenges to land value taxation also exist, but they are not insurmountable. Since property taxation in the United States is administered by local governments as permitted by the laws of each state, implementation of land value taxation in most states would require new statutory authority, and in some cases a constitutional amendment.

A land value tax also raises administrative issues. The land and improvements of each parcel need to be assigned a taxable value in a timely and accurate fashion. The good news is that administrative policy and professional standards already require most tax assessors to report separate values for land and improvements. The cautionary news is that this information is not always accurate. A successful two-rate property tax system would require regular assessments of land and improvements.

Land value taxation is an attractive alternative to the traditional property tax, especially to much more problematic types of property tax measures such as assessment limitations. This report recommends consideration of the following features as part of a tax reform package:

- measures to guarantee best practices by local assessing officials and frequent reassessment of taxable properties;
- phase-in of dual tax rates over several years to reduce the immediate negative impact on some property owners; and
- inclusion of a tax credit feature to reduce the burden on land-rich but income-poor citizens.



## CHAPTER 1

# Property Tax Reform: The Good, the Bad, and the Ugly



**Real estate value is based on both the property's location (land) and structures.**

**T**axation of real estate is almost as old as civilization itself. Property taxes were levied and collected in Egypt, Babylonia, China, and other parts of the ancient world to finance construction of palaces and temples and to maintain imperial armies. In today's world, the property tax continues to play an important role in many nations. In the United States, for example, local governments raised nearly 72 percent of their tax receipts via property taxation in fiscal year 2006. In Australia and New Zealand, the comparable shares of the property tax in local tax revenues are 100 and 56 percent, respectively.

In addition to being a major revenue source for local government provision of public education, police and fire protection, and

other vital services, the property tax has also become a lightning rod in American politics. The traditional property tax is controversial because it is widely perceived to be unfair and regressive. Although evidence to support this claim that lower-income taxpayers bear the brunt of the property tax is weak at best (Kenyon 2007), the widespread perception of regressivity has ignited taxpayer revolts and fueled efforts to reform or even abolish the property tax.

California led the way in 1978 with enactment of Proposition 13. This ballot initiative, now enshrined in the state's constitution, substitutes purchase price for fair market value as the basis for taxation. It limits the tax rate to 1 percent and the annual increase in assessed property values to no more than 2 percent.



In the decades since passage of Proposition 13, another fifteen states have enacted statewide limits on annual increases in property assessments and five others have a local option, often enacted in an effort to provide tax relief to homeowners. Many of these states have also imposed limits on the tax rates levied on assessed values and on total annual revenue from property taxation (Haveman and Sexton 2008; Anderson 2006). Although these efforts to reform and remold the property tax have been well-intentioned, they have resulted in a number of unintended negative consequences.

***Erosion of the property tax base:***

Limits on assessments of property values erode the property tax base available to fund local governments (Augustine et al. 2009). In combination with limits on property tax rates, they can lead to sharp declines in local revenues. During the year after adoption of Proposition 13 in California, for example, property tax revenues in the Golden State fell by more than 45 percent. When cities adopt a local sales tax to help restore the municipal budget, they often compete to attract large, land-consuming businesses such as big-box retailers and auto dealerships, thereby contributing to urban sprawl. Moreover, sales taxes have been shown to be regressive.

***Dependence on state aid:*** One alternative to cutting local services or finding new sources of local revenues, such as developer fees or a local income tax, is to lobby the legislature for additional state aid that can replace property tax revenues. Although state grants might seem like “free money” from a local perspective, they often arrive at city hall with strings attached. Increased dependence on state (or federal) grants can result in a loss of local autonomy, especially in setting expenditure priorities.

Dependence on state grants financed via taxes on personal incomes, retail sales, and

corporate profits also makes local budgets more vulnerable to regional and national recessions. The severe economic downturn of 2008–2009 ravaged the budgets of many states whose governors and legislators responded by cutting aid to towns and cities. In light of such fiscal uncertainties, the local property tax offers a more stable stream of revenue with which to fund essential municipal services.

***Inequity and lack of fairness:*** Acquisition-value assessments based on sale price, with limited growth in that value possible until the property is resold, have produced a number of undesirable outcomes in California and other states. Adjacent properties that are otherwise identical and that have the same market value can pay radically different annual property taxes.

In a letter to the editor of the *Wall Street Journal*, financier Warren Buffett (2003) revealed that he was paying \$2,246 in taxes on a \$4 million California property that he had acquired during the 1970s. At the same time, he was paying \$12,002 on another property that was worth only \$2 million in the same neighborhood, because he had acquired the second property during the 1990s when real estate values were much higher than in the 1970s. While this is an extreme case, it illustrates a common situation that violates the standard of fairness that calls for people in similar circumstances to pay similar amounts to support government programs.

***Influences on homeowner decision making:***

Limiting the growth of property assessments until a property is sold and resetting assessments at acquisition value, perhaps after decades, can have regrettable effects on homeowner decisions. For example, empty nesters may decide to remain in a large and valuable house because of its low tax bill, thereby denying a suitable home to a larger

family living in a cramped bungalow or apartment. Several states have softened this lock-in effect, permitting some portability of the lower assessment to a new residence; this, of course, also has the effect of increasing the inequity between long-time owners and new purchasers.

In another example, a recently unemployed person who has found a new job on the other side of a large city might decide to make a longer daily commute instead of moving closer to work, thereby contributing to expressway congestion and air pollution. These are among the individual decisions affected by tax policies that can have significant impacts on housing markets, economies, and the environment.

In summary, we believe that past property tax reforms have sometimes led to bad and even ugly consequences despite the lofty intentions and rhetoric of their sponsors and supporters. Is there a better path to property tax reform? The comments of William Vickrey (1999), recipient of the 1996 Nobel Prize in Economics, point to a superior version of property taxation:

The property tax is, economically speaking, a combination of one of the worst taxes—the part that is assessed on real estate improvements . . . and one of the best taxes—the tax on land or site value.

Vickrey’s remark emphasizes that the traditional property tax is actually two distinct taxes bundled into one annual tax bill. One portion is a levy on the assessed value of a parcel of land, and the other is a levy on the assessed value of any structures or other improvements on that parcel. Although the traditional property tax applies the same tax (or millage) rate to both components, this ratio could be changed.

The example in table 1 demonstrates that one could unbundle the two components of a property’s value, apply different tax rates to the land and improvement values, and still raise the same amount of tax revenue. Applying a higher tax rate to land values than to improvement values converts the traditional one-rate property tax into a two-rate (often called split-rate) tax. Exempting improvement values from taxation altogether converts the property tax as we have known it into a pure land value tax.

TABLE 1 Alternative Property Tax Rates Can Yield the Same Result			
	Land Tax Payment (land value= \$100,000)	Improvements Tax Payment (improvements value= \$300,000)	Total Tax Payment
Traditional Property Tax (1% on both values)	\$1,000	\$3,000	\$4,000
Two-rate Property Tax (2.5% on land, 0.5% on improvements)	\$2,500	\$1,500	\$4,000
Pure Land Value Tax (4% on land value only)	\$4,000	0	\$4,000



## CHAPTER 2

# The Case for Land Value Taxation



Supporters of land value taxation argue that converting the property tax into a land value tax would encourage a more efficient use of resources and make the tax system more equitable. Another claim predicts that a tax on land values would discourage speculative behavior in the real estate market.

The most famous case for land value taxation is found in Henry George’s 1879 book, *Progress and Poverty*. During an historic period of rapid economic development, technological change, and urbanization in the United States, George was struck by the persistence of poverty despite significant economic progress. He attributed social inequality and periodic economic crises to private ownership of land and land market speculation. His remedy was a confiscatory tax on land rents

received by private landowners. George was optimistic that his “single tax” could substitute for all other forms of taxation and still finance government operations in a rapidly growing nation.

In this report we do not propose sweeping reform of the “single tax” variety. Rather, we review the case for taxing land values in light of modern economic theory and contemporary experience. In particular, we consider the land value tax as an alternative to or reform of the property tax as it currently exists.

### EFFICIENCY ADVANTAGES

A land tax is an efficient tax—it makes the economy more productive and thus creates wealth. Most taxes are inefficient because, in addition to transferring resources from the

Philadelphia,  
Pennsylvania

private sector to support government activities, they also change the price of the taxed activity and thus distort market choices. This distortion of otherwise efficient choices to work, consume, save, or invest is referred to as the “excess burden” of a tax. A land value tax does not distort investment choices because, with trivial exceptions, the amount of land is fixed and thus unaffected by a tax on its value.

A property tax, on the other hand, discourages investment in new structures and maintenance of existing structures by reducing the return on such expenditures. Switching from a tax on structures and land to a tax on land alone could raise the same revenue without the excess burden of discouraging investment in structures. A land tax is a neutral tax and does not distort choices as to how much to invest in structures.

### **BURDEN ON LANDOWNERS**

Most taxes are shared among producers, consumers, and other affected parties (e.g., suppliers, employees) as the price and amount of the taxed good change in response to the tax. A land tax is different. Because the quantity of land is fixed, the burden of the tax falls entirely on landowners. The value of land is determined by the demand for the fixed amount available. Market forces set the price at what the land is worth to buyers, and that willingness to pay will not change because a land tax is imposed.

To nineteenth-century proponents of land value taxation, a tax burden that fell entirely on landowners was clearly desirable. The ownership of land was highly concentrated in some states and cities, making its taxation fall disproportionately on the rich—a progressive burden. In the contemporary context, the distribution of burden of a land tax is much more complicated. Ownership patterns based on land values versus structural values are hard to calculate. Moreover,

if the goal is to introduce progressive elements into the overall tax burden, the modern personal income tax offers a much more direct way of doing so.

### **SPECULATION AND THE TIMING OF DEVELOPMENT**

One of the advantages frequently claimed for land value taxation is that it discourages speculators from holding land out of production by betting it will be worth more in the future—that is, it is thought to encourage the development of land sooner rather than later. According to Henry George (1962 [1879], 413):

[T]axes on the value of land not only do not check production as do most other taxes, but they tend to increase production by destroying speculative rent. ... If land were taxed to anything near its rental value, no one could afford to hold land that he was not using, and, consequently, land not in use would be thrown open to those who would use it.

Modern economic theory, on the other hand, concludes that a land value tax is neutral in the choice of investing now or waiting to invest at a later time—just as it is neutral in the choice of how much to invest at any point in time. The timing-neutral result turns on two key conditions or assumptions. First, it is assumed that the current holder of land has access to either cash or credit sufficient to cover current taxes or other holding costs, and can thus postpone development to achieve a larger payoff.

Second, for a tax to be neutral with regard to the timing of development, it is also necessary that the taxable value of land be independent of its current use and instead be based on its “highest and best use,” that is, the most profitable use in light of zoning and other governmental or legal constraints on its development. The market value of a

parcel of land is determined by the willingness of potential users to pay for it: the party planning to undertake the most profitable use will bid the highest value. If the tax assessment reflects market conditions, the assessor will assign a value based on that “best” use.

An owner with the goal of maximizing returns from the parcel has an incentive to make the most productive use of the property in choosing the timing of development. For example, assume that there are just two alternative uses for a parcel of land: “develop now” and “develop later.” To compare the two choices, the landowner will calculate the expected payoff from each using an appropriate interest rate to adjust for the timing differences.

Given this framework, suppose the landowner calculates that, in the absence of any tax, the “develop later” option is more profitable. Oates and Schwab (2009) liken this comparison to a balance scale where all of the profit from “develop now” is weighed against all of the profit from “develop later.”

Now suppose that a land value tax based on highest and best use is added to the calculations. Since the amount of the tax is independent of the timing of development, it will have no impact on that decision. Adding or removing the identical weight from both sides of a balance scale does not change the way it tilts. This is, in effect, what a land tax based on value in highest and best use does to the timing decision—nothing. A tax that is neutral with respect to use will be neutral with respect to the timing of development.

The “no one could afford to hold land” argument assumes, then, that most or all land speculators lack cash reserves and cannot borrow money to pay their tax bills by pledging their vacant land as collateral. That is unlikely to be true. Of course, some land speculators could be cash-strapped and lack access to credit, but those individuals would have had a hard time paying their property



taxes even before a shift to land value taxation. Oates and Schwab (2009) argue that the economics of “develop now” versus “develop later” would be unaffected by a shift to land value taxation (box 1).

Even if some taxpayers were property rich but cash starved, it is not obvious that a switch to a land tax would encourage more rapid development, because property taxation is not always based on the highest and best use. If some land uses are, in fact, favored by taxation, it is possible for a land value tax to delay the timing of development.

Suppose, for example, that a parcel on the urban fringe would have a preferential assessment based on its current agricultural value under either a property tax or a land-only tax. Tax rates on land would have to be higher under a land value tax than a property tax in order to raise the same total amount of revenue from all parcels.

The balance scale for development time is affected not by tax rates alone, but by the dollar amount of the tax payments. The higher tax rates under a land tax regime should mean a larger absolute difference between the agricultural and developed use tax payments,

BOX 1

Land Taxation in Henry George's Time Compared to the Current Context

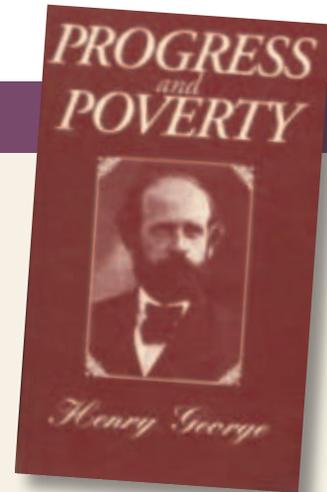
To understand the differences between Henry George's thinking about land taxation and current views, we offer three distinctions: pure speculation versus development by the owner; supply-side versus demand-side bubbles; and a confiscatory single tax on full land rent versus a more moderate land tax equivalent in magnitude to the current property tax.

Oates and Schwab's (2009) summary of the argument from modern economic theory that a land tax is neutral with respect to the "develop now" versus "develop later" choice holds whether the current holder of land envisions being the actual developer or a pure speculator betting that someone else will pay a higher price to develop in the future.

Henry George was writing in a time when very large tracts of land were being held by pure speculators, not owners who were deciding when to invest in new structures on the land. They were owner-developers only in the sense that they might sell off smaller parcels of undeveloped land at some future date. The question then is, Why do they expect prices to rise? This leads to the second distinction.

The speculative bubbles of Henry George's time differed from those of today, and Case (1992) distinguishes between the two. George was concerned with what Case would label "land bank speculation," where speculators buy up land in areas subject to development pressure and artificially restrict supply to drive up prices. In the current context of an already developed economy, the monopoly power conditions for this argument of sufficiently large parcels with sufficiently few owners are unlikely to be met. More common today is the problem of too many transactions, not too few.

In what Case would label "bandwagon speculation," speculators exacerbate demand-driven swings in real estate prices by betting on additional price changes, not on the underlying value of the property. Moreover, the demand side of the recent real estate bubble included pure price speculators, but also many purchasers who invested in new improvements to the parcels before they attempted to resell them.



The third distinction between the late nineteenth century and current times is the magnitude of the tax being proposed. As an antidote to the problem of George's time—speculative holding of land by those with no intention of developing it themselves—he recommended a tax of 100 percent on the increment to land value. His "single tax" would require the owner to pay the full rental value of the property in annual taxes.

In the context of property values that reflect a highly developed urbanized landscape, it is an understatement to say that a confiscatory tax on land values would face enormous political and practical hurdles to enactment. Today it is much more appropriate to consider a more moderate land value tax that would be a substitute for and raise the same magnitude of revenue as the existing property tax.

While a confiscatory tax on the entire increment to land value may indeed take away all of the potential gains from engaging in pure land price speculation, taxes at more standard levels are likely to be outweighed by the potential gains to landowners during spectacular price increases. As Karl Case has written (1992, 237):

It may well be that the potential gains to holding leveraged assets during boom periods are so great that even high rates of taxation do not discourage many people from jumping in. The problem may simply be that the political will to raise land taxes to levels high enough to really retard boom cycles does not exist. How high is high enough? No one knows, but it is probably closer to Henry George's 100% than to the current laws around the world.

and thus be more likely to tip the scale in favor of delayed development.

**SPRAWL AND THE DENSITY OF DEVELOPMENT**

Would a land value tax encourage development of land at the urban fringe and thus increase sprawl? Much of the concern about this possible outcome is related to the timing of development issue examined in the previous section and is subject to the same criticisms. The land tax is neutral with respect to the amount of investment, the timing of development, and the location or density of development. But, if the land tax replaces a traditional single-rate property tax that yields an equal amount of revenue, then the transition may affect timing and density of development.

A property tax is not neutral in any of these dimensions, so a switch to a land value tax may affect the density of housing development and thus urban sprawl. The argument,

developed by Brueckner and Kim (2003), is complicated because it identifies forces pulling in opposite directions. On the one hand, lowering the tax on structures will encourage more structures to be built on a given land area so the same population could be housed in a smaller area. On the other hand, lowering the tax on structures would decrease the cost of housing, leading each household to consume relatively more.

While in theory the net result could go either way, Brueckner and Kim argue that the first effect is likely to dominate and that moving away from the property tax, or the part of it that falls on structures, will probably restrain urban sprawl.

**REVENUE ADEQUACY**

Questions are often raised about the revenue potential of a land value tax. While this might be an issue for something as ambitious as Henry George’s proposal for a single tax that replaced all other taxes, it is much less a con-



**Taxing land, not structures, should reduce sprawl.**

cern when a land tax is examined as an alternative to the traditional property tax. Oates and Schwab (2009) conclude that the revenue potential of a land value tax is much greater than often supposed.

In those jurisdictions where land value taxation has been tried, it has typically taken the form of a two-rate tax, not a pure land value tax. That is, improvement values are still subject to taxation, but at a lower rate than land values. In many cases the revenue stream from a pure land value tax would be an inadequate substitute for the revenues flowing from the traditional property tax.

In Milwaukee, for example, all of the rents from land would have to be taxed away if its city government were to free buildings and other improvements from taxation and keep municipal spending at the same level. In Philadelphia, more than 80 percent of land rents would need to be collected by the city in order to maintain municipal

revenues if improvements were exempted from taxation. Given these fiscal realities, it is not surprising that the land value tax is often phased in as a two-rate tax system instead of a pure land tax (England 2007).

## SUMMARY

The case for the land value tax versus the traditional property tax on both land and structures is multifaceted. The land value tax is efficient in that it does not distort investment choices, while the part of the property tax that falls on structures does discourage investment. The burden of the tax on land falls entirely on landowners, who have no opportunity to shift the tax to others. The land value tax is neutral with respect to the choice of when to develop a parcel and the density of development or sprawl, while the alternative of taxing improvements probably increases sprawl.

**Taxing land would not affect the timing of development.**

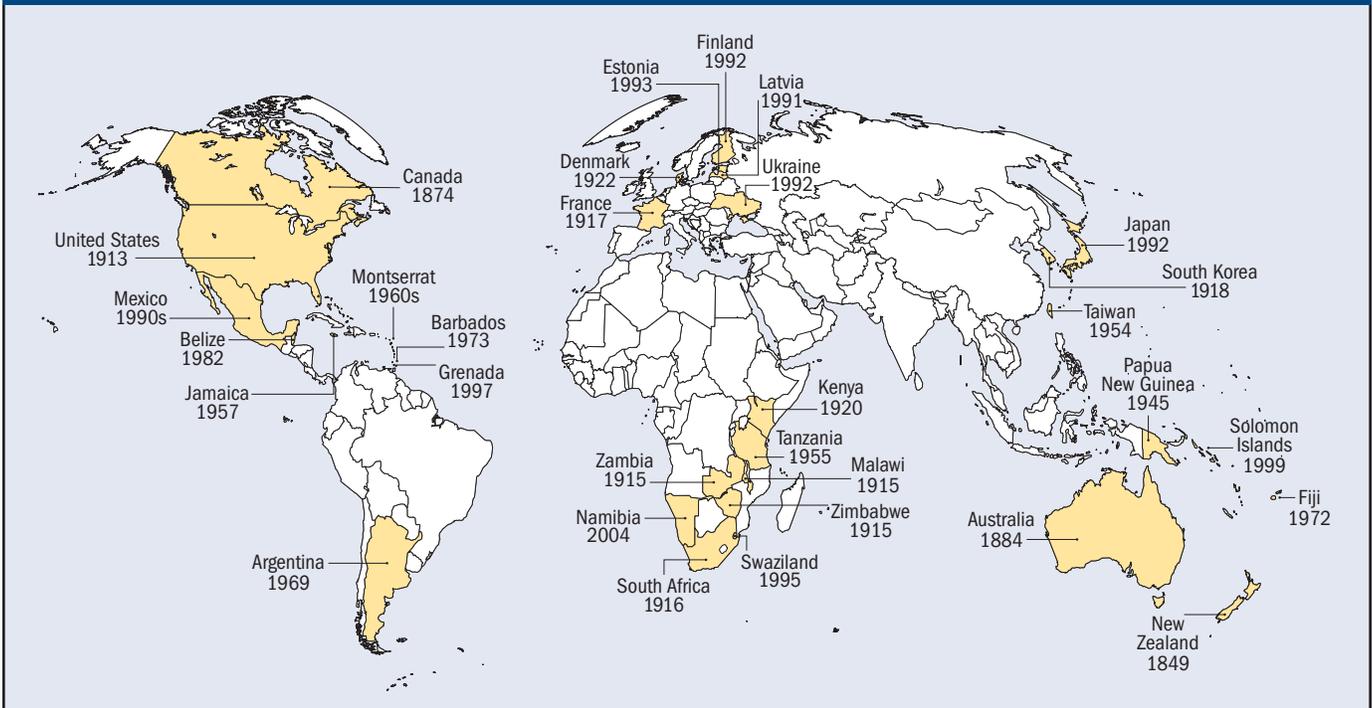




## CHAPTER 3

# U.S. and International Experiences

FIGURE 1  
Countries with Land Value Taxation Experience by Year of Adoption



Sources: Andelson (2000); Bird and Slack (2004); Franzsen (2009); Franzsen and McCluskey (2008).

Although the logic of taxing land values instead of incomes, profits, sales, and building values is compelling, the reader might wonder whether this type of property tax reform is realistic or not. The experiences of several U.S. states demonstrate that land value taxation is not a utopian proposal. Countries as diverse as Australia, Jamaica, and Kenya also have levied some form of a land value tax (figure 1).

### U.S. EXPERIENCES

#### *Pennsylvania*

Nearly a century ago, in 1913, the Pennsylvania legislature permitted Pittsburgh and Scranton to tax land values at a higher rate

than building values. The adoption of this enabling statute was motivated by the widespread perception in Pittsburgh that wealthy landowners were withholding land from development and realizing hefty speculative gains. Dual rates on land and building values were phased in until a 2:1 ratio was reached after a dozen years. When Pittsburgh gained home-rule status in 1974, its municipal government raised the tax rate on land values to 3.9 times the rate on building values.

A 1951 statute allowed smaller Pennsylvania cities to adopt a two-rate property tax. Although most municipal governments in the Keystone State have never adopted a land value tax, thirteen towns and cities and two school districts did so in recent decades (table 2).

The capital city of Harrisburg implemented two-rate property taxation in 1975. Municipal officials and local business leaders hoped that lowering the tax rate on building values and raising it on land values would stimulate new construction and renovation of older buildings. In other words, they viewed land value taxation as a local policy to help reverse economic decline and encourage urban revitalization.

Taxation of land values in Pennsylvania suffered a setback in 2001 when Pittsburgh rescinded its two-rate system of property taxation after nearly nine decades. Deficient assessment practices in Allegheny County played a major role in that repeal. In 1996, county commissioners had ordered a five-year freeze on property assessments and fired 42 assessors. A local court overturned the assessment freeze but limited annual increases in assessed values to 2 percent

until an outside contractor could perform a thorough reassessment.

When reassessments were released in January 2001, several decades after the previous round of property reassessments, they reflected a very large average increase in land values and an unequal distribution of the rate of increase around that average. Public officials then failed to cut tax rates by an offsetting amount. Consequently, most homeowners saw their annual tax bills jump sharply, and some saw their bills increase by very large amounts. Property owners were outraged and they blamed the two-rate system of property taxation (Hughes 2007).

Steven Bourassa (2009a, 16), a leading scholar of the Pittsburgh experience, has concluded, “In the end, land value taxation was the scapegoat for infrequent and inaccurate assessments and clumsy rate-setting procedures [in Pittsburgh]....” Despite this reversal, sixteen Pennsylvania communities continue to levy a two-rate property tax, with rate ratios ranging from 1.66:1 to 30:1.

**TABLE 2**  
**Pennsylvania Communities with a Two-Rate Property Tax in 2008**

Place	Year of Adoption	Ratio of Tax Rates (land/improvements)
Aliquippa	1988	7.07
Aliquippa School District	1993	6.32
Allentown	1997	4.70
Altoona	2002	15.81
Clairton	1989	12.61
Clairton School District	2006	2.42
DuBois	1991	29.67
Duquesne	1985	1.66
Ebensburg	2000	3.67
Harrisburg	1975	6.00
Lock Haven	1991	5.70
McKeesport	1980	3.87
New Castle	1982	3.54
Scranton	1913	4.60
Titusville	1990	3.11
Washington	1985	23.61

Source: Bourassa (2009a).

### *Hawaii*

A few years after gaining statehood, Hawaii adopted a two-rate property tax statewide in 1963. This adoption was motivated in part by a desire to promote tourism and real estate development. For a variety of reasons, including introduction of commercial jet service at the same time, tourism in Honolulu exploded during the 1960s and 1970s. Extensive construction of high-density projects transformed Waikiki Beach and provoked a local backlash. Joni Mitchell memorialized this conversion of Waikiki with her popular 1970 lyric, “They paved paradise and put up a parking lot...”

One could argue that inadequate urban planning and bad zoning decisions were the true sources of the problem, but local officials and editorial writers blamed land value taxation. As a result, that tax policy was



approval. If this pilot program helps to spur urban redevelopment in New London, it could foster even broader support for land value taxation in other Connecticut cities and elsewhere.

### **INTERNATIONAL EXPERIENCES**

Australia is a leading example of a nation that has relied heavily on land value taxation to finance both state and municipal budgets. South Australia and New South Wales were pioneering states, adopting the tax during the late 1800s, years before the 1901 creation of the Australian federation.

The Australian experience offers several specific variations on the general theme of land value taxation. In some jurisdictions, the value of raw, unimproved land is taxed, and in other states or municipalities, the value of improved land (including clearing, leveling, and draining) is taxed. A second distinctive feature is that the federal government enacted a land value tax in 1910 to finance an old-age pension program and to break up large tracts of idle land. This national land tax was repealed in 1952, in part because it failed to break up large estates and in part to provide additional tax base to local governments across Australia.

New Zealand and South Africa offer two other notable experiences with land value taxation. Beginning in the late 1840s, many local governments in New Zealand have taxed land values to finance their operations. The percentage of localities relying on land value taxation peaked in the 1980s at 80 percent. Since then, this percentage has dropped, but New Zealand continues to be a prime example of the successful long-term use of land value taxation to support local government.

In South Africa, property taxation has been a source of revenue for urban municipalities since 1836. In the early twentieth century, various provinces enacted legislation permitting cities to adopt land value taxation. For nearly a century, various cities in South Africa relied upon taxation of urban land values as a significant revenue source. In 2001, however, the national government enacted legislation mandating a traditional property tax throughout the country.

This elimination of land value taxation will redistribute the tax burden in various South African cities in years to come. According to Franzsen and McCluskey (2008, 279), the motivation for this shift in tax policy was threefold:

- the political desire to tax the wealth in improvements;
- the desire for more national uniformity in policies, with fewer local options; and
- the belief that defensible and credible sales data for land in highly developed urban areas were increasingly difficult to find.

### **SUMMARY**

After surveying the experiences of taxing jurisdictions around the world, we conclude that land value taxation is more than an intriguing and attractive idea. It is a form of taxation that has actually worked since the nineteenth century at national, state, and local levels of government. Taxation of land values began with its 1849 adoption in New Zealand, and today it is practiced in countries as diverse as Estonia, Fiji, and the United States. Proposals to tax land values more heavily than improvement values can find support in both historical experience and economic theory.



# CHAPTER 4 Evaluating the Evidence on Land Value Taxation



**E**conomic theory suggests that, compared to a traditional property tax, land value taxation promotes efficient use of society’s resources, encourages local economic development, and probably discourages urban sprawl. However, legislators and local officials considering a shift from a traditional property tax to a land value tax want more than theoretical arguments before committing political capital to this version of property tax reform. The real-world experiences with land value taxation in many Pennsylvania cities and in nations around the world offer evidence that can be used to test the claims of proponents.

### STATISTICAL COMPARISONS

A number of studies have attempted to make statistical comparisons of places with and

without land value taxation or data gathered before and after the adoption of land value taxation in order to test its impact on economic development (Anderson 2009). However, economists do not have the ability to conduct controlled experiments within a laboratory setting as do chemists or mechanical engineers.

Rather, economists need to look for the effects of a change in tax regimes through various measurements of a complex and evolving economy, while recognizing that many other economic and social changes may be affecting those measurements at the same time. The impact must be observable in some measurable outcome, such as an increase in building permits, and there must be a means to control for other changes in local conditions that might also affect the outcome.

**Some research studies demonstrate evidence of benefits from land value taxation.**

### ***Differential Effects***

The impacts of a land value tax can only be observed as part of a change from an alternative tax regime, in most cases the traditional property tax. Modern economic theory suggests that a land value tax has little or no impact on building activity, but that the part of the property tax levied on improvements discourages new construction and building maintenance. A shift from a standard property tax to a two-rate tax might thus cause an increase in building activity. The greater efficiency of a land value tax could also produce greater economic growth.

### ***Measurable Outcomes***

Economic theory suggests that switching to a land value tax might result in a number of outcomes: lower house prices; more improvements per acre of land; higher population density; more employment and higher wages; and less urban sprawl. Some of these outcomes, such as labor market effects, are potentially measurable but likely to be modest and obscured by the effects of other factors. As a result, most land value tax impact studies concentrate on some measure of real estate market activity.

Limited availability of comparable real estate data for different years or locales leads many researchers to settle for a simple count of the number of building permits issued by local governments. More desirable, but less frequently available, are measures of the dollar value of new building permits or new construction activity. However, a property tax on improvements discourages both new construction and expenditures on the maintenance of existing structures, thereby encouraging disrepair and abandonment. The most desirable data, yet even more difficult to find, would be the value of all improvements—not just new building activity.

### ***Controls for Other Factors***

The fact that a lower tax on improvements is followed by increased building activity does not in itself prove that the switch to a land value tax caused the building activity. Such an increase could be caused by something else entirely, and the association with land value taxation could be spurious. To reduce this problem, but not eliminate it, researchers attempt to include in their studies measures of other determinants of building activity, such as interest rates and population growth. The more carefully chosen and measured these control variables are, the easier it is to isolate and interpret the effect of the tax change.

A related problem that could obscure the true relationship between the tax regime and building activity is selection bias, which can arise in a number of ways. If all jurisdictions adopting the tax share special characteristics that set them apart, those characteristics, rather than the tax, could be responsible for the observed results.

In Pennsylvania, for example, municipalities have a local option whether or not to adopt land value taxation. If land value taxation is adopted by a particular municipality beset by strong forces not related to tax policy that are causing a decline in economic activity, the adoption would be statistically associated with economic decline—even if the land tax actually had the favorable effect of making the decline much smaller than it otherwise would have been.

Another municipality could adopt a land value tax as just one component in a multifaceted economic development strategy. Suppose one of the other policies is successful but land value taxation has no actual impact. Because multiple policies were enacted at the same time, it would be very difficult statistically to attribute the positive outcome to one policy or another. In some cases, statistical techniques are available to control



for selection bias, but in others it is difficult to distinguish tax-regime effects from other associations.

***Magnitude of Effects***

Another problem with design and interpretation of land value taxation impact studies is that the magnitude of the tax changes observed may be small relative to measurement of the outcome. All things considered, the two-rate form of the land value tax adopted in some Pennsylvania cities has resulted in fairly modest changes in tax rates.

For example, the municipal tax rate on improvements might be substantially lower after adoption. However, if as in Pennsylvania the municipal tax is only a fraction of the combined tax bill when the county and school districts are included, then the overall drop in the tax rate on improvements could be quite modest. Moreover, taxes are only a part of the total cost of capital, so the percentage change in the cost of owning and operating a building is less than the percentage change in taxes on that building.

Of course, unlike the Scranton example (box 2) or other Pennsylvania cities, the effect of lowering the tax rate on improvements can be large under several scenarios:

- if the difference in land tax and improvements tax rates is large;
- if the municipal tax rate is a large share of the combined total tax rate;
- if land value taxation applies to all types of local government, not just municipalities; and
- if property taxes are a large portion of the total cost of capital.

**TYPES OF MODELS AND STUDIES**

Anderson’s (2009) careful review of the evidence on land value taxation organizes many different studies under the following categories.

***Simulation and Theoretical Models***

A simulation model does not provide direct evidence from historical experience, but rather offers a sophisticated form of mathematical projection based on economic theory. Simulation models often include multiple sectors of the local economy (e.g., consumers, manufacturers, service providers) and specify how they might interact with one another in various markets. The models can be calibrated to resemble a particular local economy and rely on key relationships—such as producers’ ability to substitute capital for land—already estimated by other researchers.

Since the theory predicts that decreasing the tax on buildings will have a favorable impact, simulation models grounded in that same theory show the same outcome, and can provide estimates of how large that impact might be. Simulation models can also build on theoretical models to calculate feedback effects across the many sectors of the economy with magnitudes that are based upon real-world measurements.

***Comparison Studies***

Prior to the 1980s, studies of land value taxation relied on simple comparisons of readily available statistics before and after a change in tax regimes or between locales with and without land value taxation. This type of study offers incomplete evidence, however, since it cannot rule out other forces that may have affected local economic development. Some of these studies are suggestive of a favorable impact on building activity, but they are not conclusive. Some advocates of land value taxation rely on comparison studies to predict greater building activity in communities adopting a land value tax, but they are making hopeful assertions rather than offering convincing evidence.

BOX 2

**Two-Rate Taxes in Scranton, Pennsylvania**

The City of Scranton (2008; 2009) has a two-rate tax with the assessed value of land taxed at 10.3 percent and improvements at 2.2 percent. Given that land value and improvements value represent 24 and 76 percent of the total tax base respectively, the equivalent single property tax rate on both land and improvements would be 3.7 percent.

In this situation, moving from the traditional single-rate property tax to a two-rate tax decreases the municipal-only rate on improvements by more than 40 percent. But, property owners also pay single-rate taxes to Lackawanna County, the local school district, and other entities, so the combined total rate on improvements would decrease by only 8 percent. Table 4a shows the tax rates on assessed value as set by local governments and seen on tax bills.

These tax rates are levied on actual assessed value; however, the burden of taxes is best measured relative to the market value of property. In Lackawanna County (2008; 2009), assessed value represents, on average, only 7.1 percent of the current sales value of the property. Adjusting for this difference makes the effective rates of the tax on market value much lower (table 4b).

Moreover, the cost of using capital includes not only taxes, but also interest costs and depreciation. If we assume that these nontax costs are around 10 or 12 percent of building value per year, then the change in the cost of capital for the City of Scranton to switch from a property tax to a two-rate tax would be only about

1 percent. This is very small relative to changes in building permits or other outcome variables. Thus, it may be hard to detect the impact of land value taxation in the existing evidence, even if its effect is exactly as predicted by economic theory (Ingram 2008).

**The municipality of Scranton lowers its tax on improvements, but the school district and other taxing entities do not.**

TABLE 4A  
**Tax Rates on Assessed Value**

	Nominal Land Tax Rate (%)	Nominal Improvements Tax Rate (%)	Equivalent Nominal Single Tax Rate (%)
<b>Municipality</b>	<b>10.3145</b>	<b>2.2432</b>	<b>3.7076</b>
County	3.6498	3.6498	3.6498
Library	0.2500	0.2500	0.2500
Education Fund	0.1000	0.1000	0.1000
School District	10.5370	10.5370	10.5370
<b>Combined Total</b>	<b>24.8513</b>	<b>16.7800</b>	<b>18.2444</b>

TABLE 4B  
**Tax Rates Adjusted to Market Value**

	Effective Land Tax Rate (%)	Effective Improvements Tax Rate (%)	Equivalent Effective Single Tax Rate (%)
<b>Municipality</b>	<b>0.7313</b>	<b>0.1590</b>	<b>0.2629</b>
<b>Combined Total</b>	<b>1.7620</b>	<b>1.1897</b>	<b>1.2935</b>





### **Regression Models**

The stock in trade of empirical research in most fields of economics is regression analysis—a statistical technique that isolates the relationship between the outcome measure and a variable of interest by including numerous control variables representing other factors which, in theory, should affect the outcome. This analysis offers a significant improvement over comparison studies, but the results are still subject to problems with variable measurement, choice of the controls, or selection bias.

In a land value tax impact study, there is always the possibility that some omitted variable is the true cause of the change in construction activity, not the lower tax rate on improvements. Anderson (2009) reviews a number of these regression-model studies, including four dealing with Pennsylvania cities and one with Australia.

- Mathis and Zech (1983) found no relationship between land value taxation and the

level of building activity across Pennsylvania municipalities. This is hardly surprising because there was little variation in the tax rate measure across the localities that they studied.

- Bourassa (1990) looked at residential building activity in three Pennsylvania cities and found the tax to have a significant impact only in Pittsburgh.
- Oates and Schwab (1997) compared new building activity in Pittsburgh and in 14 other industrial cities in the northeastern states. Between 1979 and 1980, Pittsburgh increased the ratio of land to improvements tax rates from 2:1 to 5:1. After the change, Pittsburgh experienced a 70 percent increase in the value of building permits while all of the other cities except Columbus, Ohio, experienced declines in building activity. Viewed as a comparison study, this suggests a substantial favorable impact of land value taxation compared to the single-rate property tax.

**Pittsburgh,  
Pennsylvania**

Using a regression context with good measurement of the key variables, a reasonable set of comparison cities, and controlling for the commercial building occupancy rate, Oates and Schwab found results that are consistent with a tax effect but not conclusive. This is because Pittsburgh launched an aggressive and comprehensive economic development program at the same time as the tax change.

- Plassmann and Tideman (2000) used building permit data for Pennsylvania cities in the 1980s and 1990s in a sophisticated statistical study that estimated that split-rate taxation results in an increase in residential construction on the order of 3 or 4 percent.
- Lusht (1992) studied differences across municipalities in the metropolitan area surrounding Melbourne in the state of Victoria, Australia. Individual municipalities in the state can select either land value or total value as the property tax base. Lusht finds higher levels of development in locales with land value taxation, but Anderson (2009) notes that selection bias could contaminate the results if there are systematic differences between those communities choosing the land value tax and those that tax land and improvements at the same rate.

### SUMMARY

There is strong theoretical support for land value taxation, in particular for reducing the tax on real estate improvements. Simulation studies grounded in that theory and allowing for complicated interactions across different markets can illustrate the potential improvements. A number of empirical studies use historical data to show a positive impact on

local building activity from reducing the tax rate on improvements. Unfortunately, statistical results are usually inconclusive.

Very few land value tax studies can satisfy the research standards for selection of outcome measures, sufficiently precise measurement of variables, and controls for nontax influences on building activity to sustain the conclusion that a shift to land value taxation will necessarily result in good economic outcomes. Wherever possible, though, it is desirable that tax policy should do no harm—even if the purported benefit of the tax regime is hard to measure or isolate from other factors. Oates and Schwab (1997, 18–19) make this point well when they conclude their study with the following interpretation.

[I]t is important to remember that the Pittsburgh fiscal reform took place in a setting of strong demand for office space. We certainly cannot conclude from the Pittsburgh experience that tax reform *in itself* is capable of generating major urban renewal efforts. Our findings thus do not support some of the more extravagant claims that land-tax proponents have made for the role of the tax in stimulating economic activity. The contribution of land-value taxation is to be understood not in terms of any direct stimulus to development, for there is likely to be little or none if the tax is basically neutral. Rather, land-value taxation provides city officials with a tax instrument that generates revenues but has no damaging side effects on the urban economy. In this way, it allows the city to avoid reliance on other taxes that can undermine urban development.



# CHAPTER 5 Legal and Assessment Challenges



The state capitol complex, Harrisburg, Pennsylvania

The simple fact that land value taxation has been practiced in various nations since the nineteenth century demonstrates the feasibility of taxing land values at a higher rate than improvement values. Nonetheless, jurisdictions seeking to implement this type of property tax reform could face legal and property assessment challenges. Although most obstacles can be overcome, proponents of land value taxation need to take them into account as they mount their tax reform campaigns.

### STATE CONSTITUTIONAL ISSUES

Property taxation in the United States is administered primarily by local governments subject to powers granted by the state government, so state constitutions and statutes need to be inspected for potential legal roadblocks to land value taxation. Many states have clauses in their constitutions requiring

that tax laws be applied in an identical manner to all taxpayers. Such provisions might impede adoption of a two-rate property tax because property parcels with high land values would be taxed more heavily than those with high improvement values, even if the total values of those parcels were the same.

Coe (2009) lists four common state constitutional principles regarding taxation: uniformity, equality, universality, and proportionality. Each state constitution may use different wording for these provisions, which are subject to specific interpretation on a state-by-state basis, but all express a general goal of horizontal equity when applied to property taxation.

- **Uniformity.** The most commonly stated constitutional principle addresses the application of taxes in an identical or uniform manner to all parties. Thirty-nine states have explicit uniformity provisions in their constitutions. For example, the Minnesota

Constitution, Art. X, sec. 1, states that taxes “shall be uniform upon the same class of subjects.”

- **Equality.** Closely related to uniformity, this provision states that properties of equal value are to be subject to the same amount of tax. Sixteen states have equality provisions in their constitutions, such as Art. XI, sec. 1 of the Kansas Constitution, which provides for a “uniform and equal basis of valuation and rate of taxation of all property subject to taxation.”
- **Universality.** This principle requires that all property be subject to taxation unless specifically exempted by law. Twenty states have such provisions. The Arizona Constitution, Art. IX, sec. 2 (13), provides a clear example of this principle when it subjects to taxation “all property in the state not exempt under the laws of the United States or under this constitution or exempt by law.
- **Proportionality.** When applied to property taxation, proportionality sets taxes on different parcels of property in relation to the value of those properties. Twelve states have proportionality provisions in their constitutions. The Vermont Constitution, Ch. 1, Art. 9, illustrates the basic concept of proportionality when it states that every member of society “hath a right to be protected in the enjoyment of life, liberty, and property, and therefore is bound to contribute the member’s proportion towards the expense of that protection.”

The West Virginia Constitution, Art. 10, sec. 1, demonstrates that all four principles can be combined in a single provision, providing that “taxation shall be equal and uniform throughout the state, and all property, both real and personal, shall be taxed in proportion to its value to be ascertained as directed by law.”

These provisions are not an insurmountable barrier to land value taxation, however. Pennsylvania has had a uniformity provision in its constitution since 1874 and yet enacted a statute in 1913 that enabled several cities to implement a two-rate property tax. That statute still stands nearly a century later.

Many states have other constitutional provisions that could permit land value taxation even if such clauses exist. For example, 44 state constitutions permit the exemption of some properties from taxation; 11 states explicitly allow the exemption of improvements from property taxation; and 17 states permit classification of properties into separate categories and differential taxation of those classes (Coe 2009).

Exemption and classification provisions also could open the constitutional door to adoption of land value taxation. Most states have already adopted constitutional provisions or enacted statutes that permit or mandate special, nonmarket-value assessment of agricultural lands in order to avoid legal conflicts with uniformity requirements.

Coe (2009) offers several approaches to drafting an amendment or statute that would permit two-rate property taxation, depending on the specific legal situation in the state:

- differential classification of land and improvements as objects of taxation;
- differential assessment ratios for land and improvements;
- differential tax rates for land and improvements; and
- partial or total exemption of improvements from taxation.

## **ASSESSMENT AND ADMINISTRATIVE CONCERNS**

Land value taxation raises important issues of tax administration. The most pressing concern is to assess the land and improvement values of all taxable parcels in a timely and accurate fashion (Bell, Bowman, and



German 2009). At first glance, this might seem like a simple matter. After all, one survey found that 29 states already require county and municipal assessors to list land and building values separately on their property tax rolls (Brunoi and Carr 2002). Even in states with no such requirement, local assessors often record land and improvement assessments, in addition to the total assessed values of properties. It would seem, then, that the administrative apparatus for a two-rate property tax is already in place in many jurisdictions across the United States.

This appearance is deceptive, however. When the same tax rate is applied to both land and improvements, local assessors have little reason to expend resources assessing those two values accurately. In order to avoid taxpayer complaints and lawsuits, they simply need to assess the *total* values of properties with reasonable care. If a jurisdiction shifts to two-rate property taxation, however, assessors need to measure both components of total parcel value accurately. Failure to do so would invite individual lawsuits and a political reaction by some property owners.

In cities and urbanized counties, land value taxation is likely to be implemented as an economic redevelopment tool. Because sales of land alone may be rare in developed jurisdictions, assessors cannot rely on recent land-only transactions to measure the land values of adjacent parcels with buildings and other improvements already installed. In an active real estate market, assessors can use the prices that buyers are willing to pay for “teardown” properties to gather more information about land values of nearby properties. However, in a depressed real estate market this option may not be available.

Traditional methods of assessing land values in developed urban areas have various drawbacks. The most common approach has been the *abstraction* or extraction method. This technique starts with the market value

of a property and subtracts the cost of replacing its building and other improvements, attributing the residual value to the land. As time passes, economic depreciation and obsolescence may occur, and subjective judgments are needed to extract the residual land value from market data.

Some local assessors still use the *allocation* method to assess urban land values. However, this technique makes the arbitrary assumption that land values are the same fixed percentage of total value for each and every property. This method cannot provide the assessment data that a two-rate system of property taxation needs to be successful.

In recent years, real estate appraisers and property tax assessors have developed other techniques to measure the land values of developed properties using the *contribution* method. Computer-assisted mass appraisal (CAMA) models can break down the sales prices of houses or other properties into values contributed by location, lot size and shape, building square footage, building style and age, and other property characteristics. Sophisticated assessors now use geographic information system (GIS) methods to define neighborhoods with roughly the same land value per acre. If local officials adopt best assessment practices and reassess land values frequently, then implementation of land value taxation will have a much better chance of success (German 2009).

## SUMMARY

This discussion of the legal and administrative requirements for implementing a land value tax leads us to conclude that a land value tax is certainly feasible in many U.S. jurisdictions. Before a land value tax can be implemented, however, it must first be enacted by state and local officials. Effective implementation would also require the use of land assessment techniques that are available, but not currently in widespread use.



## CHAPTER 6

# The Politics of Adopting Land Value Taxation



**The property tax is a very unpopular tax.**

**T**axes have been called the price of civilization, because they pay for publicly provided community services. Some taxation is necessary, but each type of tax has its own advantages and disadvantages. A tax on land values has some striking advantages over the traditional property tax. Since land is in fixed supply, the land tax cannot be avoided by using less land or using land less productively, so a land tax is neutral. On the other hand, a tax on building value can be avoided in part by cutting back on the amount built, so a tax on improvements discourages economic development. However, any tax policy change must meet the test of being politically acceptable to the public at large.

### CURRENT VIEWS AND PRACTICES

The property tax is a very unpopular tax, and the land value tax is a little used variant of the property tax that is not well understood. This presents a political challenge for those recommending a switch to a different kind of property tax rather than a measure to limit the traditional property tax. Put another way, it will be hard for advocates of the land tax to avoid its being viewed by the public as the much-maligned property tax wrapped in a different package.

Moreover, it is harder for taxpayers to judge the fairness of assessments when land and improvements are valued separately. Property is typically sold as a single bundle



of land and improvements, so comparable sales data exist as a check on single-value assessments. Although techniques exist for separately appraising the values of land and improvements, there are no transparent market comparisons available for these component values.

The adage “an old tax is a good tax” rings true because existing tax rules, however disliked, are built into the expectations and decisions of consumers, producers, and administrators. Decisions as to where to live, how much house to buy, or what level of local public services to vote for have all been made with preexisting taxes in mind.

It is also true that tax administrators have learned to estimate the tax base and collect revenues under the laws, rules, and definitions that have been in place for decades. In many cases, the expectation of continuing taxes under the old rules have been built (or “capitalized”) into the market value of land, housing, or business structures. Incremental changes in tax rates, tax base definitions, or other rules are much less disruptive than radical changes to a tax regime.

Yet, some elements of land value taxation and property taxation are similar. Good practice and administration are necessary to implement any tax policy, and some of these desirable features are the same for a property tax and a land value tax.

- Assessments should be uniform with respect to the true or market value of the property (or land).
- Assessments should be timely and reflect current and recent market values.
- The publicly determined level of service needs should guide the overall level of tax collections.
- The tax rate should be sufficiently flexible to offset fluctuations in the assessed tax base.

## LESSONS FROM PAST EXPERIENCE

If land value taxation is a good idea, why have some jurisdictions that tried it later rejected the concept? The two major instances of rescinding land value taxation in the United States can be attributed not to problems with the land value tax per se, but with failures of other policies that became associated with the land value tax in the public’s mind (Bourassa 2009b). In Hawaii different land use planning policies could have prevented the overdevelopment in Waikiki and other tourist areas. Instead, “pav[ing] paradise and put[ting] up a parking lot” was attributed to the incentives for development perceived in the land value tax.

In Pittsburgh, where the best empirical studies suggest a favorable impact of land value taxation on local economic development, the tax was rescinded for what would have constituted poor practice under any property tax. First, a decades-overdue reassessment of all properties in Pittsburgh resulted in a massive redistribution of relative tax burdens. Public officials then failed to cut tax rates correspondingly, which resulted in a significant increase in absolute tax burdens. The land value tax thus became the scapegoat for the lack of timely reassessment and the lack of rate-setting flexibility.

A third contributing factor to the public unrest in Pittsburgh was particular to the land value tax as opposed to the property tax. The lack of transparency in the separate assessment of land and improvement values made it harder for the public to know whether the assessment process was fair. With no easy access to comparable sales, public perception held that land values were relatively under-assessed for downtown Pittsburgh business interests and overassessed for residential properties. This illustrates the importance of an open, transparent, and frequently updated system of assessment.

## TAX REFORM WINNERS AND LOSERS

There is another sense in which “an old tax is a good tax.” Any revenue-neutral switch to a new tax regime has both winners and losers, giving those who might be losers a political interest in the status quo. Any tax reform starts from current practice rather than a blank slate. Even if analysis favors the land value tax over the property tax, political support for a change will be affected by individuals or groups who expect their taxes to go up or down.

**Waltham,  
Massachusetts**



Who are the winners and losers from a revenue-neutral switch from a property tax to a land value tax? Every parcel has both a land value and improvements value component, so the key difference among taxpayers is the share of total value contributed by land (Plummer 2009). The land intensity of a parcel is its land value divided by its total value (land plus improvements). Parcels with land intensity equal to the jurisdiction-wide average will be unaffected by the switch; parcels with above average land intensity will pay higher taxes under the land-only tax; parcels with land intensity below the jurisdictionwide average will benefit from no longer taxing improvements.

The distribution of land intensity across different types of parcels will depend upon local conditions, and this will determine the distribution of winners and losers from a switch to a land value tax. A shift will occur across classes of property—commercial, industrial, apartments and condos, and owner-occupied residential—and within property classes across different income levels of the owners.

Several studies have estimated the distribution of tax burden shifts that would follow a transition from a property tax to a land value tax in specific U.S. communities. England and Zhao (2005) predicted the effects of land value taxation in Dover, New Hampshire, and Bowman and Bell (2008) studied Roanoke, Virginia.

These two communities differ in the aggregate impact on single-family homeowners relative to other classes of property. In Dover, the residential land intensity is high, so homeowners as a group would see their taxes rise relative to commercial property owners under a land value tax. In Roanoke, land intensity is low for residential property, so homeowners would benefit from relatively lower taxes.

The two studies show the different burden shifts within the single-family parcel class. In Dover the switch to a land value tax would make the distribution of burdens with respect to income less progressive than under the current property tax regime. In Roanoke, the switch would disproportionately impact owners of higher valued residences (presumably also higher income) and thus make the burden more progressive.

### **SUMMARY**

Before land value taxation can be implemented, its proponents need to do some basic research and assemble a broad coalition of supporters. Although a single champion can accomplish much (as in Fairfax or Roanoke, Virginia), an effort to enact and retain land value taxation is likely to fail unless a broader group of taxpayers voices its support. It may also be important to phase in land value taxation over several years and to offer tax credits to protect owners of modest properties with higher land intensities. In short, proponents of land value taxation need to tailor their message to local economic circumstances if they are to succeed politically.



**Roanoke, Virginia**



**Dover, New Hampshire**



## CHAPTER 7

# Conclusions and Recommendations



### Philadelphia, Pennsylvania

**T**his report examines a type of property tax reform that keeps what is best about the property tax, the land value tax, and eliminates or shifts from what is worst, the tax on the value of buildings and other improvements. Such a reform would avoid the many adverse effects of popular property tax measures such as limitations on the assessed value of certain properties.

Land value taxation is a realistic, not utopian, proposal that shifts some or all of the property tax from buildings to land, and it could offer important benefits, such as removing or reducing disincentives to invest in new buildings; greater neutrality with respect to the timing of new develop-

ment; and, arguably, discouragement of urban sprawl.

At the same time, there are a number of legal, administrative, and political barriers to this reform. In some states, constitutional provisions would require careful attention to the drafting of enabling statutes in order to avoid litigation. In many localities, assessment officials would need funding and technical assistance to adopt and master best practices. In those communities where land prices are relatively high, a combination of exemptions, credits, and varied rates should be considered to mitigate the burden on small property owners. In all cases, changes should be introduced gradually over a transition period.

To facilitate adoption and retention of a two-rate property tax, we recommend the following features as part of a tax reform package:

- measures to guarantee best practices by local assessing officials, including frequent reassessment of taxable properties;
- phase-in of dual tax rates over several years to reduce the immediate negative impact on some property owners; and
- inclusion of a tax credit feature to reduce the burden on land-rich but income-poor citizens.

Land value taxation is an attractive alternative to the traditional property tax, especially to much more problematic types of property tax reform such as assessment limitations. As Oates and Schwab (1997) concluded, the switch to land value taxation alone may not revive the downtown area of an older industrial city, but policy makers should not underestimate the importance of choosing a tax regime that will not have damaging side effects or impede economic development.



The choice of a tax regime can affect the location and type of new development.



## REFERENCES

- Andelson, Robert V., ed. 2000. *Land-value taxation around the world*. Malden, MA: Blackwell.
- \* Anderson, John E. 2009. A review of the evidence on land value taxation. In *Land value taxation: Theory, evidence, and practice*, Dye and England, eds.
- Anderson, Nathan B. 2006. Property tax limitations: An interpretative review. *National Tax Journal* 59: 685–694.
- Augustine, Nancy Y., Michael E. Bell, David Brunori, and Joan M. Youngman. 2009. *Erosion of the property tax base: Trends, causes, and consequences*. Cambridge, MA: Lincoln Institute of Land Policy.
- \* Bell, Michael E., John H. Bowman, and Jerome C. German. 2009. The assessment requirements for a separate tax on land. In *Land value taxation: Theory, evidence, and practice*, Dye and England, eds.
- Bird, Richard M. and Enid Slack. 2004. *International handbook of land and property taxation*. Northampton, MA: Edward Elgar.
- Bourassa, Steven C. 1990. Land value taxation and housing development: Effects of the property tax reform in three types of cities. *American Journal of Economics and Sociology* 49(1): 101–111.
- \* ———. 2009a. United States experience with land value taxation. In *Land value taxation: Theory, evidence, and practice*, Dye and England, eds.
- \* ———. 2009b. The political economy of enacting land value taxation. In *Land value taxation: Theory, evidence, and practice*, Dye and England, eds.
- Bowman, John H., and Michael E. Bell. 2008. Distributional consequences of converting the property tax to a land value tax: Replication and extension of England and Zhao. *National Tax Journal* 61: 593–607.
- Brueckner, Jan K., and Hyun-A. Kim. 2003. Urban sprawl and the property tax. *International Tax and Public Finance* 10(1): 5–23.
- Brunori, David, and Jennifer Carr. 2002. Valuing land and improvements: State laws and local government practices. *State Tax Notes* 25 (September 30): 1023–1033.
- Buffett, Warren. 2003. Letter to the editor. *Wall Street Journal*, November 3.
- Case, Karl E. 1992. Taxes and speculative behavior in land and real estate markets. *Review of Urban and Regional Development Studies* 4: 226–239
- City of Scranton, Pennsylvania. 2008. *Independent Auditors' Report* (December 31). [http://www.scrantonpa.gov/business\\_admin\\_docs/2008%20Audit%20Report.pdf](http://www.scrantonpa.gov/business_admin_docs/2008%20Audit%20Report.pdf)
- . 2009. *2009 Operating Budget*. [http://www.scrantonpa.gov/business\\_admin\\_docs/2009%20Operating%20Budget.pdf](http://www.scrantonpa.gov/business_admin_docs/2009%20Operating%20Budget.pdf).
- \* Coe, Richard D. 2009. The legal framework for land value taxation in the United States. In *Land value taxation: Theory, evidence, and practice*, Dye and England, eds.
- Dye, Richard F., and Richard W. England, eds. 2009. *Land value taxation: Theory, evidence, and practice*. Cambridge, MA: Lincoln Institute of Land Policy.
- England, Richard W. 2007. Land value taxation as a method of financing municipal expenditures in U.S. cities. In *Land policies and their outcomes*. Gregory K. Ingram and Yu-Hung Hong, eds. Cambridge, MA: Lincoln Institute of Land Policy.
- England, Richard W., and Min Qiang Zhao. 2005. Assessing the distributive impact of a revenue-neutral shift from a uniform property tax to a two-rate property tax with a uniform credit. *National Tax Journal* 58(2): 247–260.
- \* Franzsen, Riel C.D. 2009. International experience with land value taxation. In *Land value taxation: Theory, evidence, and practice*, Dye and England, eds.
- Franzsen, Riel C.D. and William J. McCluskey. 2008. The feasibility of site value taxation. In *Making the property tax work: Experiences in developing and transitional countries*. Roy Bahl, Jorge Martinez-Vasquez, and Joan Youngman, eds. Cambridge, MA: Lincoln Institute of Land Policy.
- George, Henry. 1962 [1879]. *Progress and poverty*. New York: Robert Schalkenbach Foundation.
- German, Jerry. 2009. The new model for tax administration. Online course. [www.lincolnst.edu/education](http://www.lincolnst.edu/education)
- Haveman, Mark, and Terri A. Sexton. 2008. *Property tax assessment limits: Lessons from thirty years of experience*. Cambridge, MA: Lincoln Institute of Land Policy.
- Hughes, Mark Alan. 2007. Why so little Georgism in America: Using the Pennsylvania case files to understand the slow, uneven progress of land value taxation. Working Paper. Cambridge, MA: Lincoln Institute of Land Policy.
- Ingram, Gregory K. 2008. Note on measuring changes in capital/land ratios related to tax changes. Working Paper. Cambridge, MA: Lincoln Institute of Land Policy.
- Kenyon, Daphne A. 2007. *The property tax–school funding dilemma*. Cambridge, MA: Lincoln Institute of Land Policy.
- Kwak, Sally. 2009. Biases in analysis of split-rate property tax reforms: Hawaii's experience 1963–1979. Working Paper. Cambridge, MA: Lincoln Institute of Land Policy.
- Lackawanna County. 2008. *County Lines 2008*. Department of Planning and Economic Development. [http://www.lackawannacounty.org/uploads/COUNTY\\_LINES\\_2008.pdf](http://www.lackawannacounty.org/uploads/COUNTY_LINES_2008.pdf).
- . 2009. 2009 Lackawanna County millage and 2009–2010 school millage. [www.lackawannacounty.org/uploads/millage2008\\_2009.pdf](http://www.lackawannacounty.org/uploads/millage2008_2009.pdf).
- Lusht, Kenneth. 1992. The site value tax and residential development. Working Paper. Cambridge, MA: Lincoln Institute of Land Policy.
- Mathis, Edward J., and Charles E. Zech. 1983. An empirical test: The economic effects of land value taxation: Reply. *Growth and Change* 14(3): 47–48.
- Oates, Wallace E., and Robert M. Schwab. 1997. The impact of urban land taxation: The Pittsburgh experience. *National Tax Journal* 50(1): 1–21.
- \* ———. 2009. The simple analytics of land value taxation. In *Land value taxation: Theory, evidence, and practice*, Dye and England, eds.
- Plassmann, Florenz, and T. Nicolaus Tideman. 2000. A Markov chain Monte Carlo analysis of the effect of two-rate property taxes on construction. *Journal of Urban Economics* 47(2): 216–247.
- \* Plummer, Elizabeth. 2009. Fairness and distributional issues with land value taxation. In *Land value taxation: Theory, evidence, and practice*, Dye and England, eds.
- State of Connecticut. 2009. Public act no. 09-236: An act establishing a land value taxation pilot program. <http://www.cga.ct.gov/2009/act/Pa/pdf/2009PA-00236-R00SB-00379-PA.PDF>
- Vickrey, William. 1999. Simplification, progression, and a level playing field. In *Land-value taxation: The equitable and efficient source of public finance*, K.C. Wenzler, ed. Armonk, NY: M.E. Sharpe.
- \* References noted with an asterisk are chapters from the Lincoln Institute book *Land value taxation: Theory, evidence, and practice*, Dye and England, eds.

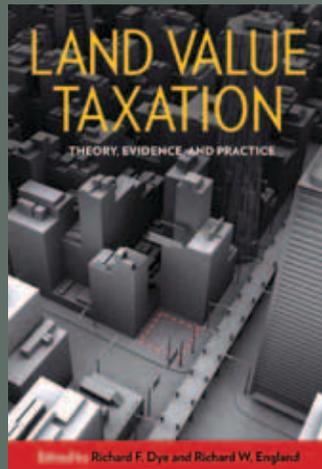
## ABOUT THE AUTHORS

**Richard F. Dye** is a visiting fellow at the Lincoln Institute. He is professor at the Institute of Government and Public Affairs at the University of Illinois at Chicago and the Ernest A. Johnson Professor of Economics Emeritus at Lake Forest College in Illinois. His research focuses on state and local government finance as it relates to economic development. Contact: [dye@lakeforest.edu](mailto:dye@lakeforest.edu)

**Richard W. England** is also a visiting fellow at the Lincoln Institute, and professor of economics and natural resources at the Whittemore School of Business and Economics, University of New Hampshire. His recent research has examined how local property taxation and zoning rules affect land use change in the United States. Contact: [rengland@lincolninst.edu](mailto:rengland@lincolninst.edu)

## ACKNOWLEDGMENTS

We would like to acknowledge our enormous debt to the chapter authors of the book on *Land Value Taxation* we recently edited—John Anderson, Mike Bell, Steve Bourassa, John Bowman, Rick Coe, Riël Franzsen, Jerry German, Wally Oates, Elizabeth Plummer, and Bob Schwab. Working with scholars of their stature greatly improved our own understanding of the topic. We also benefited from comments from participants at presentations we made on land value taxation at the Lincoln Institute of Land Policy, the National Tax Association, and the International Association of Assessing Officers. Finally we offer our sincere thanks for the insightful comments we received from readers of earlier drafts of this report—Steve Bourassa, Gregory K. Ingram, Daphne Kenyon, Ann LeRoy, and Joan Youngman.



## ABOUT THE LINCOLN INSTITUTE OF LAND POLICY

[www.lincolninst.edu](http://www.lincolninst.edu)

Lincoln Institute is a private operating foundation whose mission is to improve the quality of public debate and decisions in the areas of land policy and land-related taxation in the United States and around the world. The Institute's goals are to integrate theory and practice to better shape land policy and to provide a nonpartisan forum for discussion of the multi-disciplinary forces that influence public policy. The Institute seeks to inform decision making through education, research, demonstration projects, and the dissemination of information through publications, our Web site, and other media. Lincoln Institute programs bring together scholars, practitioners, public officials, policy advisers, and involved citizens in a collegial learning environment.

## Ordering Information

To download a free copy of this report or to order copies of the printed report, visit [www.lincolninst.edu](http://www.lincolninst.edu) and search by author or title. For additional information on discounted prices for bookstores, multiple-copy orders, and shipping and handling costs, send your inquiry to [lincolnorders@bssc.com](mailto:lincolnorders@bssc.com).

## Production Credits

PROJECT MANAGER & EDITOR  
Ann LeRoy

DESIGN & PRODUCTION  
DG Communications/*NonprofitDesign.com*

PRINTING  
Recycled Paper Printing, Boston



## Photographs

Ann LeRoy, front cover (left)  
iStockphoto.com, front cover (center and right), 2, 4, 7, 9, 11, 12, 15, 17, 23, 26, 30, 31, back cover (left and center)  
Carl Abraham, 20  
Jupiter Images, 21  
Joan Youngman, 28  
Ben Schumin, 29 (top)  
Richard England, 29 (bottom)  
Carolyn Anderson, back cover (right)



113 Brattle Street  
Cambridge, MA 02138-3400 USA

Phone: 617-661-3016 x127 or  
800-LAND-USE (800-526-3873)

Fax: 617-661-7235 or  
800-LAND-944 (800-526-3944)

Web: [www.lincolninst.edu](http://www.lincolninst.edu)  
Email: [help@lincolninst.edu](mailto:help@lincolninst.edu)



# Assessing the Theory and Practice of Land Value Taxation

The land value tax is a variant of the property tax that imposes a higher tax rate on land than on improvements, or taxes only the land value. Many other types of changes in property tax policy, such as assessment freezes or limitations, have undesirable side effects, including unequal treatment of similarly situated taxpayers and distortion of economic incentives. Land value taxation would enhance both the fairness and the efficiency of the property tax.

Raising the tax rate on land has few undesirable effects, while lowering the rate on improvements has many benefits. Land is effectively in fixed supply, so an increase in the tax rate on land value will raise revenue without distorting the incentives for owners to invest in and make use of their land. By contrast, the part of the property tax that falls on structures or other improvements discourages investment. The burden of the tax on land falls entirely on landowners, who have no opportunity to shift the tax to others (such as renters). The land value tax is neutral with respect to the choice of when to develop a parcel and the density of its development, whereas the taxation of improvements is likely to increase low-density sprawl.

More than 30 countries around the world have implemented land value taxation, so it is not a utopian proposal. In the United States, experience with land value taxation dates back to 1913, when the Pennsylvania legislature permitted Pittsburgh and Scranton to tax land values at a higher rate than building values.

Land value taxation is an attractive alternative to the traditional property tax, especially to much more problematic types of property tax measures such as assessment limitations. This report recommends consideration of the following features as part of a tax reform package:

- measures to guarantee best practices by local assessing officials and frequent reassessment of taxable properties;
- phase-in of dual tax rates over several years to reduce the immediate negative impact on some property owners; and
- inclusion of a tax credit feature to reduce the burden on land-rich but income-poor citizens.