Frequently Asked Questions: Land Value Tax

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What is a land value tax?

Most State or local governments employ a property tax. This is a tax levied against the combined value of land and buildings (if any) located on a particular parcel. A land value tax is simply a property tax that is levied only against the value of land. It is rare to find jurisdictions that tax only the value of land. Altoona, Pennsylvania, tried this briefly.[i] However, a few jurisdictions tax building values at a lower rate than land values.

Are there other names for a land value tax?

Sometimes, this type of tax is called a "site value tax" or a "location value tax." These names emphasize that it is the value of the location that is being taxed. Some communities tax building values at a lower rate than land values. This is referred to as a "two-rate" or "split-rate" property tax. This less-radical approach recognizes the policy foundation for a land value tax, which is that taxing land and taxing buildings have different economic consequences. The United Nations refer to several policies grounded in this foundation as "land-based financing."[ii] A recent report from the Transportation Research Board described this type of taxation as "land value return and recycling."[iii]

Why tax land values and building values at different rates?

In brief, people react very differently to taxes applied to the value of buildings and land. Taxes on building values reduce the quantity and quality of buildings while increasing their prices. Surprisingly, taxes on land values typically lead to lower land prices and motivate development of high-value sites near existing urban infrastructure amenities, reducing sprawl and infrastructure duplication. The mechanics are explained in more detail below.

Building values are privately created. Landowners decide when to construct, improve, or maintain buildings. If landowners do not make improvements on a vacant property, there is no building value on that site. A tax applied to the value of a building becomes a cost of production, because it is only applied if building value is created.

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Increasing the cost of production, by taxing improvement values, causes the amount of production to decline. This reduces supply. Therefore, a tax on building value results in fewer buildings (or buildings of lower quality) and inflates their prices. If a community wants to maximize employment and enhance housing affordability, applying a tax to the value of buildings would appear to be counterproductive. This tax reduces construction, improvement, and maintenance activities while simultaneously increasing the price of buildings.

There is a weak relationship between the value of a building and the costs of providing public goods and services. For example, it generally costs the same to construct and maintain streets, sidewalks, and utility pipes in front of a lot, regardless of whether the lot is developed or vacant. There will be more consumption of water, electricity, and transportation services if there is an occupied building, but this could be paid for through user fees.

If a building owner wants to make energy-saving improvements to an existing building, doing so will increase the value of the building, resulting in higher taxes. Higher taxes push the "break-even" point of this investment further into the future – perhaps making it uneconomical.

Value Capture: Capitalizing on the Value Created by Transportation

If a building owner allows a building to deteriorate, this reduces the value of the building and results in lower taxes. The owner of a vacant lot or boarded-up building pays less property tax than a neighbor who maintains his or her building. Increasing taxes on owners who invest in their buildings, while reducing taxes on owners who disinvest in their buildings, appears to be contrary to policy objectives for job creation and housing affordability.

Land value is a reflection of the natural resources and public amenities available at a particular location. As such, land value is largely independent of whatever individual owners might do. Surprisingly, increasing the tax on land value *causes the price of land to decline*. There are several reasons:

First, the supply of land is fixed. There is just as much land after it is taxed as there was before. Therefore, there is no reduction in the supply of land to drive up its price.

Second, the price of land is based on the benefits that people expect to receive from owning it. When land is taxed, the benefits of ownership are reduced and this reduces the price that people are willing to pay.

Third, some land that could be used for residential, commercial, industrial, or agricultural purposes is often held out of use by owners who believe that it might be advantageous to develop this land (or sell it for development) at a later time. This artificial scarcity of developable land can result in increased land prices. If a tax on land value is imposed or increased, it becomes more expensive to hold high-value land off the market, thereby bringing more prime sites onto the market for development. This increase in the supply of land that is available for development also tends to reduce the price of land in that location

Tax shift. Shifting the property tax from privately created building value to publicly created land value tends to make both buildings and land more affordable. It also creates an incentive to develop high-value land. High-value land tends to consist of infill sites near urban infrastructure amenities (e.g., street networks, transit, schools, and parks). To the extent that demand for development is finite at any given time, and to the extent that this demand is satisfied by infill development, there is less development pressure at the urban fringe. Development that is more compact can help preserve rural areas for agriculture, conservation, and recreation while reducing the amount of infrastructure necessary to accommodate new residents and businesses, thereby reducing per-capita tax burdens.

Why is a land value tax more like an infrastructure access fee and less like a tax?

A tax is a payment for a general benefit. There is a weak relationship between the amount of taxes paid and the benefits from public goods and services received in return. A fee is paid for a specific benefit or for a specific cost that is imposed upon the public sector. A fee is more like a price. For example, water bills are typically based on the amount of water used. Similarly, a parking meter charge is a fee for use of a parking spot, not a tax.

Because the value of land reflects the benefits that the public provides to a particular site, a tax on land value is more like an infrastructure access fee. That is because the amount of the tax is directly related to the benefits that the owner receives from all the public goods and services available to that site.

Why does the distinction between "tax" and "fee" matter?

Fees create incentives that encourage the efficient use of resources. When residents pay a per-gallon fee for water, the more they use, the more they pay. Residents conserve water to avoid paying excessive water bills. If we paid for water with a sales tax on consumer goods, there would no longer be an economic incentive to conserve water.

Owners of vacant lots do not consume or flush water at these sites. Therefore, is there any justification for the water and sewer authority to charge them a fee? If the water and sewer authority has created water and sewer pipes at the property boundary of a vacant lot, the lot is more valuable than if these pipes were absent. In this case, the water and sewer authority has created land value, and a land value tax (paid by the owner of the lot) compensates the water and sewer authority for this benefit. Access to

infrastructure, even if the infrastructure is not used, can have value. A land value tax is really an infrastructure access fee. Like a user fee, it compensates the public sector for bestowing a benefit.

Thus, water and sewer authorities could be justified in charging both user fees and access fees to compensate them for the benefits that they bestow. This is true for transportation agencies as well. Transit riders typically pay fares. Drivers might pay tolls, congestion fees, or parking fees. However, transit and road agencies typically collect little or no revenue from landowners whose land value is enhanced by access to these valuable transportation services and facilities.

Some institutions do not pay property taxes because they are "tax-exempt." Yet, these same institutions pay fees for services such as electricity, water, and sewer. By reducing the tax rate applied to building values and increasing the tax rate applied to land values, a jurisdiction converts its property tax into an infrastructure access fee. This creates a situation whereby it could be more likely to get all property owners to contribute in proportion to the public benefits that they receive.

Isn't it important to tax buildings to compensate for costs imposed by development?

If land is developed, the people who use that development will consume more water, electricity, and transportation resources. For this reason, some contend that there should be a tax applied to the size or value of buildings. However, the consumption of public goods and services by those who occupy developed land can be paid for through user fees instead of taxes. User fees can create beneficial incentives. Higher user fees for parking and roadways, for example, could result in less single-occupant vehicle traffic and less pollution. Communities that have imposed congestion-based roadway user fees have also observed significant reductions in traffic congestion.

If new development exceeds the capacity of existing infrastructure and requires creation of new capacity, user fees will not be sufficient to cover the capital costs. In this instance, a development impact fee might be appropriate.[iv]

Increasing reliance on user fees encourages resource conservation while ensuring that payment is proportional to consumption. Likewise, increasing reliance on infrastructure access fees (i.e., land value taxes) encourages development that is more compact. It does this while at the same time ensuring that payment is proportional to the benefits received from access to public goods and services. Compact development can make walking, cycling, and transit more efficient, convenient, and affordable, while simultaneously reducing the need for infrastructure duplication.

Taxing building values does not encourage efficient resource utilization and discourages energy-saving retrofits to existing buildings. By comparison, user fees and access fees for infrastructure enable jurisdictions to recover costs imposed by development more efficiently and effectively.

Would jurisdictions lose revenue by reducing the tax rate applied to building values?

If a jurisdiction only reduced the tax applied to buildings, it would lose revenue. However, the tax rate applied to land values could be increased simultaneously to maintain revenues. It could be argued, that even if this tax shift were revenue-neutral in terms of property tax revenue at the time of the transition, it would become revenue-positive over time. The reasons for this are as follows:[v]

- More vacant lots and boarded-up buildings would be put into productive use. This would increase employment and generate income taxes, sales taxes, and some user fees.
- Vacant lots and boarded-up buildings tend to facilitate criminal activities and arson. Developing these properties would lead to reduced police and fire expenditures.
- To the extent that this tax shift would promote development that is more compact, residents and businesses could be supported with a less extensive infrastructure network that makes more efficient use of existing infrastructure,

thereby reducing long-term infrastructure expansion requirements and costs.

Are property tax rates too insignificant to affect the type or location of development?

Property tax rates are different in different jurisdictions, but they typically range between 1 and 2 percent of property value.[vi] In contrast, sales taxes typically range between 4 and 7 percent.[vii]

Directly comparing property tax rates and sales tax rates can be misleading. A sales tax is paid only when a transaction is made. A property tax on buildings is paid every year that an improvement adds value to a property. For long-lived assets (like buildings) during periods of low inflation, a "net present value" calculation shows that a 1- to 2-percent property tax has the economic impact of a 10- to 20-percent sales tax on construction labor and materials. Thus, a 1- to 2-percent property tax applied annually has a significant impact on the cost of buildings.

With regard to publicly created increases in land values (e.g., from improvements to public infrastructure), the same calculation shows that 80 to 90 percent of this value ends up as a windfall to landowners. This would appear to be an inducement for land speculation – land hoarding in lieu of land utilization. Thus, the economic impacts of property taxation appear to be significant in terms of their impact on real estate investment and disinvestment decisions.

Could a land value tax lead to over-development?

Communities may have preferences regarding the scale and intensity of development. These preferences are reflected in zoning and other development laws and regulations. These laws and regulations, to the extent that they reduce the scale or intensity of development for which there would otherwise be demand, will reduce land prices. If there is market demand for a 50-story commercial building on a vacant lot, then the price of the land will be commensurate with the net revenue that such a building would generate. If that vacant lot was zoned for a maximum of 10 stories, then the value of the land may be reduced to about 20 percent of the amount previously calculated. That is because land zoned for a 10-story building would not command prices (or taxes) commensurate with land zoned for a 50-story building. A land value tax would not compel an owner to develop more intensively than what the zoning would allow. Thus, shifting taxes from building values to land values is not expected to induce "over development," unless existing zoning allows for development that is deemed too intense. In that case, it might be more appropriate to amend the relevant zoning and development laws or regulations to ensure that development intensity is "appropriate" (as defined by that community).

In today's market, the relatively high tax on building value (relative to a risk-reward calculation) makes construction more expensive, thereby reducing the amount and quality of construction. The relatively low tax on land (relative to a risk-reward calculation) encourages land hoarding. The net result is that the built environment often fails to fill up the zoning envelope.

A community that transforms its traditional property tax into a public infrastructure access fee will encourage more development. Development pressure will be greatest where land values are highest, such as in downtown areas near urban infrastructure amenities. Thus, vacant lots, surface parking lots, and boarded-up buildings in downtowns would be subject to the greatest development pressure. If a downtown contains small historic buildings that are worthy of preservation, zoning changes and/or historic building designation and preservation incentives (such as transferable development rights) could accompany a tax shift away from building values and onto land values.

What types of infrastructure projects could be funded with a land value tax?

Any public facility or service that enhances the value of well-served locations could be funded with a land value tax. For example, in a community with significant traffic congestion, a high-performing transit station is likely to enhance nearby land values. If the transit system reduces traffic congestion throughout the entire community, it might increase land values more broadly, possibly even where access to the transit service itself is difficult or inconvenient.

Thus revenues from a land value tax could be used to fund a particular transit station or even an entire transit network. Indeed, almost any transportation facility or service, if well-designed and well executed, can enhance land values and thus could be funded, at least in part, through a land value tax.

Infrastructure projects such as freeways, roads, and sanitation facilities often have impacts, both negative and positive, on nearby land values. The effects of transportation infrastructure on nearby land values are very dependent on economic conditions and land use contexts. A new highway interchange might enhance nearby land value for trucking-related businesses, but it might diminish nearby residential land value if increased traffic, noise and pollution were the result. When land is sold, buyers assess the pros and cons and determine a value. Land value is publicly created and could serve as a justifiable source for funding the infrastructure that created that value.

Can land value taxes be used for construction, operations, or maintenance?

Revenue from a land value tax can be used for any legitimate public purpose. This would include construction, operations and maintenance of public facilities and services. If a new bridge provides improved accessibility to an area, land values are likely to rise. If the bridge is poorly operated and not maintained, that land value will diminish. Therefore, it makes sense to return publicly created land value to the public sector that created it and recycle it for the continued utility of that infrastructure.

What is the timing of revenues? Do land value taxes provide a one-shot infusion of cash or continuing revenues?

A land value tax, like a traditional property tax, produces revenue on an annual basis although collections may occur annually, semi-annually, or monthly.

Some jurisdictions outside of the United States have imposed "betterment levies" as a condition for new infrastructure projects.[viii] Calculated as a percentage of land value enhancement from a proposed infrastructure project, they are a one-time payment from landowners in exchange for new or improved infrastructure.

Are land tax revenues constant or changing? What processes determine land tax revenues?

Land value taxes, like traditional property taxes, are the product of two processes – one administrative and one political.

The administrative process involves the assessment of land value. Due to changes in population, development regulations (such as zoning), infrastructure, and economic markets, the demand for local land and its value are likely to change over time. Determination of land values benefits from a staff trained in land economics and assessment techniques, and from regular updates. This helps local officials understand the trajectory of the local economy. It also helps ensure that property is assessed fairly, based on its current array of publicly created advantages and disadvantages.

The political process is the setting of tax rates. Even if assessments are high, no tax is due unless a tax rate is applied to them. Elected officials, working with public agency administrators and constituents, determine what public goods and services should be provided and a reasonable basis for paying for them. If a public services access fee (land value tax) is selected as a source of revenue, elected officials are responsible for setting a tax rate to apply to the assessed value of land.

Typically, land values change over time, both for individual properties and in aggregate. This is true for the traditional property tax as well. It is up to elected officials to set rates that raise the desired amount of revenue. If inflation in land values exceeds general inflation, tax rates could be reduced and still raise the required amount of revenue. On the other hand, if land assessments fall, revenues can be maintained by increasing the tax rate proportionately or by obtaining funds from other taxes and fees.

What types of financing tools can be supported by land value tax revenues?

Like a traditional property tax, a land value tax yields annual revenue. Like a traditional property tax, due to fluctuating assessments and tax

rates, it is likely that total revenues will change somewhat from year to year. Because most financing tools require constant debt service payments, a portion of land tax revenues could be dedicated to debt service. This would satisfy the loan originators and underwriters that revenue for debt service payments would be reliably available for the term of the loan.

Any type of debt instrument that the implementing jurisdiction has authority to use can be used. Municipal bonds are often used if the cash requirements for the project exceed the cash flow from the land tax. However, any legally permissible debt instrument could be used. Additionally, if a project is eligible for Federal loan guarantees, such guarantees can reduce the interest rates applied to those loans.

Is a land value tax better suited for urban, suburban, or rural areas?

The suitability of an area for land value taxation varies based on a case-by-case examination. However, successful examples of land value (or split-rate) taxation can be found in urban, suburban, and rural communities.

How does land value taxation work in a rural area?

Land value tends to be a larger share of total property value in rural areas. For this reason, some assume that a land value tax would be burdensome in a rural community. However, there is a lot of hidden "improvement value" there, even in the absence of buildings. Rural assessors should be aware that fencing, drainage, irrigation systems, storm water impoundments, terracing, and interior roads are all "improvements to land," as are barns, silos and other out-buildings. The value of rural property is greatly enhanced by these privately created improvements. It is important that rural assessors subtract the value of these privately created improvements when determining the value of "unimproved land."

Certainly, if there was a farm in the middle of a city, a revenue-neutral transition to a land value tax would probably increase the tax burden on this property, because changes in tax burden would be related to the average improvement value to land value ratio in that city. (Properties with the average ratio would see no change. Properties with a higher ratio would see reduced taxes and properties with a lower ratio would see higher taxes.) However, in a rural area, the average improvement value-to-land value ratio for that community would reflect the predominant land use – which might be mostly farms. In that case, as long as a farm was characterized by the typical improvement value to land value ratio for that community, the transition would not substantially change the tax liability for that property.

Rural land, while extensive, is much less expensive per unit of area than urban land. Therefore, just as an urban landowner is not compelled by a land tax to build a 50-story building on land that is zoned for 5-story buildings, a rural farmer is not compelled to turn a farm into a subdivision if the land is valued in its unimproved state for agricultural use.

Under the traditional property tax system, farms at the urban fringe are often placed at financial risk if their land is valued according to its ability to raise subdivisions instead of corn or wheat. Some communities protect farms by regulating their subdivision through zoning and/or the creation of transferable development rights. Often farms and ranches are classified separately from other property with a lower assessment or tax rate. These practices could be continued or expanded under a land value tax, as long as jurisdictions avoid having the lower tax subsidize land speculators who are hoarding substantial acreage and only pretending to be farmers.

In the late 1800s, Danish farmers petitioned their government for a land value tax. Wealthy landowners had been buying out family farms and letting them lie fallow. When the government implemented a land value tax, the large landowners sold off some of their holdings to family farmers. Small farms tend to have more buildings and other improvements per farm than large farms. Thus, the family farms had a more favorable ratio of improvement value to land value than the large estates.[ix]

In the United States, rural examples of land value taxation have occurred within the context of special assessment districts. Pursuant to the Wright Act of 1887 as amended, irrigation districts in California were funded in part by fees

levied against the value of land within the districts.[x] Likewise, flood control along the Miami River in Ohio was funded from special assessments on the value of farmland that increased in value due to lower risks of flood damage.[xi]

How do market conditions affect the appropriateness or efficacy of a land value tax?
Because a land value tax favors land users over land hoarders, a land value tax can be beneficial for communities during all phases of the business cycle. During a "boom" period, rising land prices encourage speculators to hoard land for future sale. This can make it difficult for residents and businesses to obtain prime sites at reasonable prices. A land value tax would discourage land speculation and help ensure access to prime sites for land users at more reasonable prices.

During a "bust" period, land speculators who paid high prices for land during a preceding "boom" period are often reluctant to sell it at a loss. Because land-holding costs are low under a traditional property tax regime, these speculators may simply decide to sit and wait for the next boom period. Thus, during an economic downturn, the behavior of land hoarders continues to make it difficult for residents and businesses to obtain prime sites at reasonable prices. A land value tax makes it more expensive for landowners to hoard vacant lots and boarded-up buildings.

Pittsburgh, Pennsylvania, adopted a split-rate property tax in 1913. Data showed that the city weathered the Great Depression better than most cities in terms of losing a smaller percentage of its assessed value.[xii] Later, during boom times, Pittsburgh was notable for having more affordable housing than most other cities with robust economies.[xiii] Today, between 15 and 20 cities in Pennsylvania use a split-rate tax. Most of them adopted this reform during the 1970s and 1980s when factories were closing and their economies were going bust.[xiv]

As with any *ad valorem* property tax, market conditions may call for legislative adjustments. First, market conditions impact the economic viability of infrastructure projects. Second, if assessments rise more quickly than spending needs, the tax rate could be reduced accordingly. Moreover, if assessments rise less quickly than spending needs (or if they fall), it might be necessary to increase rates.

Could a land value tax provide funding for a project in its entirety, or only partial funding?
Projects with highly localized impacts may increase nearby land values substantially. Other projects might increase land values by the same amount, but in a more dispersed and less noticeable manner. Regardless of whether projects have localized or dispersed benefits, some projects might create land values that exceed project costs, whereas other projects might not.

A land value tax is a valuable tool for raising revenues because it creates favorable economic incentives in much the same way as user fees do. In addition, if these revenues are not sufficient to fund a project in its entirety, a jurisdiction could combine them with other revenue sources such as user fees or grants.

What is the legislative process for implementation?
Almost every State employs a property tax that includes a tax on land value. Thus, in every State that employs a property tax, a tax on land value is legal and constitutional. The ability to tax land values at a rate different from the rate applied to building values depends on State laws governing the imposition and administration of property taxes.

Under traditional property tax regimes, the jurisdictions that implement them are empowered to set the tax rates. In some jurisdictions, a legislative body has the authority to reduce property tax rates applied to building values and increase the rates applied to land values. However, the power to set tax rates has been circumscribed in some States by measures such as California's Proposition 13, which froze property assessments and limited rate increases.[xv] This complicates making a transition from a traditional property tax to a land value tax.

The first step in the legislative process is to determine what is allowed under State law. If State law prohibits separate tax rates for land

values and building values, an enabling law would need to be enacted. If State enabling legislation exists, local laws governing property tax assessments and the setting of tax rates could be implemented or amended as necessary.

If State and local enabling legislation are in place, then, pursuant to the State and local laws, the tax rates could be set to reduce the tax rate applied to building values while increasing the rate applied to land values. Most places that have implemented this approach have phased it in gradually over a period of years.

Is voter approval required?

In most States, local jurisdictions are empowered to establish property tax rates. However, Proposition 13 in California and similar measures in other States have circumscribed this power. State and local laws, including those governing the imposition and administration of property taxes, determine the degree to which voter approval may or may not be required. If local governments are empowered to set tax rates without limitations, exercising this power will not require a ballot measure or special election. But, like any legislation, a bill to set tax rates typically will involve a public hearing. Therefore, there usually will be an opportunity for public involvement, even if a ballot initiative or referendum is not required.

The State Attorney General's office is a potential source of information on whether local officials in the State have the authority to establish property tax rates and, if so, whether they have the authority to set different rates for land values and building values.

What type of analysis is needed prior to selecting this funding technique?

If State and local law authorizes setting different tax rates for land values and improvement values, this legislation will indicate whether any studies are required prior to implementation. Regardless of whether any analysis is required, legislators are likely to be curious about the impact of this approach. To obtain an "apples to apples" comparison, the assessment role can be used to develop a revenue-neutral study comparing tax liabilities under the status quo to tax liabilities when the building rate is lower than the land rate. Impacts could be assessed by land use type and by neighborhood. If commercial properties are taxed differently than residential properties under the traditional property tax, this classification could also be retained under the new approach.

Are there any tests for the constitutionality of land value taxation?

Most taxes are subject to Constitutional requirements for due process and uniformity. In States in which a traditional property tax is levied, a tax on land value is already a component of that tax. Therefore, at the Federal level, there is no Constitutional impediment to taxing land value. However, State constitutions and State and local laws, such as California's Proposition 13 (and similar laws in other States), might impose other procedural or substantive requirements governing the validity of land value taxation. Indeed, some State constitutions or statutes might specifically prohibit the taxation of land and improvements at different rates.

In Maryland, for example, Article 15 of the Declaration of Rights (part of the State constitution) indicates that land and improvements to land are separate classes of property. This would appear to permit land value taxation. However, there are provisions in the Maryland Code that permit cities to tax land and buildings at different rates, but which prohibit counties from doing so.[xvi]

Does the principle of "uniformity" prevent the use of a land value tax?

"Uniformity" is the legal principle that requires similar people or things be treated in similar ways. In other words, there should not be arbitrary differences in the way that people in the same situation (or things that are fundamentally the same) are treated by the law.

Many States have uniformity requirements. Some might conclude that all real property must be taxed the same and that taxing land and buildings at different rates violates the uniformity requirement. Yet many States with uniformity requirements, tax commercial property at one rate and residential at another. Agricultural

property is almost always taxed at a different rate. Homeowner property and rental property often have a different tax rate. Regardless of rates, homeowner property may benefit from a "homestead deduction" whereby a specified amount is subtracted from a homeowner's property assessment. Some properties are subject to lower tax rates due to their location within a designated enterprise zone.

In each of these cases, either a State or local legislative body has enacted a law that distinguishes some real property from other real property. Privately created building values and publicly created land values could be taxed at different rates if legislation establishes "unimproved land" and "improvements to land" as separate classes of property.

An examination of statutory and case law in a particular jurisdiction should reveal the potential ease or difficulty in distinguishing "unimproved land" from "improvements to land" as distinct categories subject to different tax treatment without violating uniformity.

Is it possible to separate land value from building value as part of the assessment process?

Yes. However, some might contend that because many properties contain both land and buildings, it is difficult to determine how much of the total value comes from the building and how much comes from the land. Although this discussion can become very technical, ordinary people accomplish this task every day.

Many individuals and families are in the market for a home to rent or buy. They have certain desires for bedrooms, square footage, yard size, amenities, style, etc. Once they have defined their desired home, they discover that there are many similar homes or apartments in the same condition throughout the community. Yet, homes that are practically identical might be renting or selling for dramatically different prices in different neighborhoods. That is because some neighborhoods are closer to good schools, shopping, jobs, parks, or transportation facilities while others are subject to airport noise, pollution from nearby factories, poorly maintained streets, traffic congestion, crime, etc. In other words, the same house or apartment will rent or sell for very different prices depending on the characteristics of a neighborhood. These neighborhood differences are expressed by different land values. Therefore, families understand that different neighborhoods have different land values as measured by different prices for essentially the same house or apartment.

For professional assessors, there are computers that can perform multiple regression analysis to determine which aspects of a property contribute various amounts of value to the total value or sales price. The International Association of Assessing Officers and State-level associations provide information about the technical aspects of property assessment.

Can property owners appeal the apportionment of total value between land value and building value?

In many jurisdictions, property owners may appeal the amount of a property's assessment if they believe it is in error under the applicable laws and regulations. However, because most places apply the same tax rate to both land and buildings, it makes no difference on the tax bill if a home's assessment shows $25,000 in land value and $75,000 in building value or vice versa. Because the apportionment of the assessment between land value and building value makes no difference in the amount of taxes owed, many jurisdictions do not allow this type of appeal as long as the total value is uncontested.

However, if a jurisdiction were to adopt a land value (or split-rate) tax, the apportionment of value between land and buildings would make a difference in taxes owed, even if the total value remained unchallenged. Therefore, if a jurisdiction moves from a traditional property tax to a land value (or split-rate) tax, the jurisdiction may find it prudent and fair to modify the assessment appeal process to allow appeal of value apportionment between land and buildings even if the total assessment is not contested.

Must assessments be updated periodically?

State or local law will indicate whether there is a requirement for periodic reassessments. Market conditions are always changing. Therefore, for both accuracy and fairness, property value

assessments should be updated on a regular basis to reflect those conditions.

How does a land value tax impact different types of property and property owners?

The primary reason for shifting taxes from privately created building values to publicly created land values is to promote better long-term outcomes in terms of job creation, housing affordability, and land stewardship. Sudden changes in tax rules could create short-term windfalls and wipeouts. To avoid unfairness, jurisdictions could manage these short-term impacts in several ways.

First, jurisdictions might choose to phase in any change in tax rates over a period of years. If the changes are modest in the beginning and become more aggressive in the future, owners of vacant lots, surface parking, and boarded-up buildings are able to shift their investment decisions to take advantage of the new incentives without suffering from short-term penalties. Second, homestead deductions, property tax deferrals and "circuit breaker" policies can cushion the short-term impacts of tax policy changes on property owners (and renters) who lack cash resources.

Intensity of development determines changes in tax liabilities

It is important to understand how tax burdens might shift because of a policy change. Each jurisdiction is unique and the impacts for any particular community are revealed by examining assessment data in that community. In general, a revenue-neutral change from a traditional property tax to a land value (or split-rate) property tax yields the following results:

- If a property has an improvement value to land value ratio that is the same as the jurisdiction's average ratio of improvement value to land value, then the tax liability for that property remains unchanged.
- If a property has an improvement value to land value ratio that is higher than the jurisdiction's average ratio, then the tax liability for that property will be reduced. (Well-maintained buildings that occupy a large percentage of their lots would be examples in this category.)
- If a property has an improvement value to land value ratio that is lower than the jurisdiction's average ratio, then the tax liability for that property will increase. (Vacant lots, surface parking lots and boarded-up buildings would typically be in this category.)

Because farms typically have more value in land than in improvements, some assume that a land value tax does not work well for farmers. This is not necessarily true. The impact of the transition depends on the improvement value to land value ratio of an individual property being compared to the average improvement value to land value ratio for the entire community or tax classification. Thus, in a rural community, as long as a farm has the typical ratio of improvement value to land value as most other farms, a revenue-neutral shift to a land value tax should not change tax liability significantly. Second, in a rural context, it is important to understand that there are significant "improvement values" that might be misclassified as "land value" by an urban dweller. Thus, the value of fields can be greatly enhanced by fences, irrigation systems, drainage systems, terracing, water retention ponds, interior roads, etc. It is important that rural assessors allocate value created by these improvements to "improvement values" and not to "unimproved land values."

Tax rates and application are very malleable. If proper attention is paid to the design and implementation of a new tax policy, short-term impacts can be managed to enhance fairness and political feasibility.

Rich homeowners versus poor homeowners

First, there is no necessary relationship between the value of a home and the income of its owner. Although people who are more affluent tend to have more expensive homes, there is no direct relationship between property taxation and ability to pay.

Second, many people assume that reducing or eliminating the tax on buildings will benefit affluent homeowners more than others because affluent homeowners tend to have the most expensive houses. However, in most instances, the houses in affluent neighborhoods have a lower ratio of

improvement value to land value than homes in middle- and lower-income neighborhoods. This is because land prices are proportionately much more expensive in affluent neighborhoods. So although there is no direct relationship between the income of a homeowner and the value of their house, there is more of a relationship between the income of a homeowner and the value of his or her land. As a result, shifting taxes from building values onto land values tends to reduce tax liabilities for lower- and middle-income neighborhoods compared to higher-income neighborhoods because less-affluent areas have higher ratios of improvement values to land values even though the houses themselves have modest value.

Homeowners versus renters

In general, rental properties have a higher ratio of improvement value to land value than ownership properties. This happens, in part, because of apartment buildings where many units share the same land. It also happens because rented single-family homes are often in middle- and low-income neighborhoods. Thus, in general, shifting the property tax from building values to land values tends to reduce tax liabilities for rental properties.

Residential property versus commercial property

Typically, residential property as a class has a higher improvement value to land value ratio than the jurisdictional average, but not always. Commercial property values can vary a great deal within a jurisdiction. If commercial property is characterized by low-value buildings surrounded by acres of parking, then it will likely have a very low improvement value to land value ratio. (This is typical of commercial buildings in suburban areas.) On the other hand, if a commercial building occupies almost its entire lot with little or no surface parking, then it will likely have a high improvement value to land value ratio. (This is typical of commercial buildings in older cities, towns and villages.)

Developed property versus vacant property

By definition, developed property will have a higher improvement value to land value ratio than vacant property which will have an improvement value to land value ratio of zero. Thus vacant property will always experience an increase in tax liability from a revenue-neutral transition to or toward a land value tax.

Because vacant land exists within residential, commercial and industrial areas, when analyzing the impact of this tax reform on different neighborhoods or land use types, it is important that vacant lots and surface parking lots be analyzed separately. Otherwise, the tax reductions for well-maintained developed properties may be cancelled out by tax increases for vacant properties thereby obscuring the impact of the reform.

How does a land value tax relate to a jurisdiction's capital improvement plan?

A capital improvement plan (CIP) is a State or local planning document containing all the individual capital projects, maintenance and operations, financial plans, and major studies for a state or local government. A CIP looks beyond a federally required fiscally constrained plan and includes projects outside of the fiscally constrained Plan. Construction and completion schedules can also be included. The plan provides a working blueprint for sustaining and improving the community's infrastructure.

A transportation improvement program (TIP) is a four-year, fiscally constrained document required for metropolitan planning organizations (MPOs). The TIP lists all transportation projects in an MPO's metropolitan planning area that use federal transportation funding. Detailed requirements for TIPs and the MPO transportation planning process are located in 23 CFR part 450.

A land value tax will generate revenue in a similar manner to a traditional property tax. How much of that revenue will be dedicated to capital projects is a political question that a jurisdiction's legislature will determine when it approves the CIP and TIP. This revenue can be used to fund projects in their entirety, in combination with other sources of revenue, or as a source of local matching funds for grants from other levels of government.

Are there any special accounting procedures associated with a land value tax?

A land value tax is already a component of the traditional property tax that is levied in most jurisdictions. Therefore, no special accounting practices are associated with a land value tax.

However, when determining property value assessments, jurisdictions do not always pay close attention to the way in which total property values are apportioned between land value and building value. Under the traditional property tax, both land values and building values are taxed at the same rate, so the apportionment of value does not have material consequences. Under a land value (or split-rate) property tax, two properties worth $100,000 dollars would have very different tax bills if one were apportioned with $25,000 in the land and $75,000 in the building while the other property was apportioned differently. Computer assisted mass appraisal (CAMA) programs can accurately apportion total property value between building value and land value components. For the sake of fairness and due process, jurisdictions with a land value (or split-rate) property tax could allow property owners to appeal the apportionment of their assessment even if they don't disagree with the total value.

Where has a land value tax been used?

Even though every property tax contains a land value tax as one of its components, pure land value taxes are relatively rare. Some interesting examples in the U.S. and around the world are described below. For additional examples, see NCHRP Report 873, "Guidebook to Funding Transportation through Land Value Return and Recycling."[xvii]

San Francisco

San Francisco was quickly redeveloped as a compact and vibrant city after the devastating earthquake and fire of 1906. At that time, there was no Federal Emergency Management Agency nor were there any Federal grants for redevelopment. According to Professor Mason Gaffney, San Francisco's property tax at that time was applied primarily to the value of land. Thus, when buildings were destroyed, the property tax liability continued to be substantial. This motivated landowners to redevelop quickly so that they could obtain income from which to pay their taxes.[xviii]

California Irrigation Districts

The Wright Act of 1887[xix] created irrigation districts in California and funded them through user fees for water consumption. However, it was noted that large affluent landowners within these districts could let their land lie fallow, consuming no water. These landowners paid nothing to operate and maintain the nearby irrigation systems, but reaped large benefits from increased land values due to their access to irrigation. The Wright Act was amended in 1909 and 1917 to add a fee based only on land values within the districts. This fee induced many of the large landholdings to be broken up into smaller, intensively farmed operations.

Pittsburgh[xx]

In the early 1900s, Pittsburgh was poised to become an industrial powerhouse. However, its steel industry was constrained by the limited availability of flat land. The owners of flat land along the banks of the Monongahela, Allegheny, and Ohio Rivers refused to sell unless they received above-market prices. Pittsburgh's City Council gradually reduced the tax rate on buildings and increased the tax rate on land until the tax rate on building values was one-half the rate on land value. The steel manufacturers got access to the riverfront land, and Pittsburgh began making steel and other goods as well.

Most of the country experienced a land speculation boom in the late 1920s. In Pittsburgh, however, the tax system had discouraged real estate speculation. During the Great Depression, many large cities lost 25 percent to 58 percent of their assessed property value. Pittsburgh's assessments declined by only 11 percent.[xxi] Assessments were not artificially inflated during the 1920s; therefore, they did not decline as much as elsewhere during the 1930s. In the decades following World War II, Pittsburgh was unusual for having both a robust economy and relatively affordable housing.

During the 1970s, Pittsburgh experienced a budget shortfall. The City Council proposed an increase in the tax on land value. Because most of Pittsburgh's land value is located in its downtown, many were concerned that higher taxes in Pittsburgh's downtown would hurt business. In actuality, after increasing the land tax to as much as four times the rate on buildings, Pittsburgh's downtown experienced a surge of new development that became known as Renaissance II.

Pittsburgh terminated its two-rate property tax in the early 2000s.

McKeesport, Clairton, and Duquesne, Pennsylvania[xxii]

These three small steel towns near Pittsburgh provided as close to a controlled experiment for split-rate taxation as one might hope for. In the 1970s, they all had similar demographics and a closed steel factory in the middle of town. For several consecutive years, the number and value of building permits had declined in each town. McKeesport then adopted a split-rate property tax. Soon thereafter, the issuance of building permits increased and continued to increase for several consecutive years. In nearby Clairton and Duquesne, the number of building permits continued to decline during the same period. When Clairton and Duquesne enacted a split-rate tax, building permits in these towns also began to increase.

It is important to recognize that all three of these towns remain economically distressed. Losing a major factory and thousands of jobs has a significant negative impact. Reforming the property tax did not cause the factories to re-open. Property tax reform cannot eliminate business cycles or cure major economic problems. However, regardless of the current phase of the business cycle, a split-rate property tax could allow a community to perform better than it would under a traditional property tax.

Harrisburg, Pennsylvania[xxiii]

In 1972, Hurricane Agnes caused the Susquehanna River to flood downtown Harrisburg, Pennsylvania's state capital. Similar to many other cities, middle class whites were leaving downtown for the suburbs. By 1975, Harrisburg had over 5,000 vacant and boarded-up properties in its downtown. During the early and mid-1970s, Harrisburg was listed as one of the worst cities in the U.S. for its size. In 1975, Harrisburg began to reduce the tax rate applied to building values while increasing the tax rate applied to land values. By the end of the 1980s, the number of vacant properties had been reduced from over five thousand to just a few hundred. (This rejuvenation of Harrisburg's downtown occurred long before the "back to the city" movement of recent years.) Harrisburg began being listed as one of the better cities in the U.S. for its size.

Miami Conservancy District[xxiv]

In Ohio, a flood control project along the Miami River was funded through a special assessment based on the increased value of nearby farmland for which flooding risks were substantially reduced. This special assessment was based on land value only – and therefore is similar to a land value tax in that respect.

Peoria Enterprise Zone[xxv]

Peoria, Illinois, created an enterprise zone in the early 1980s. One of the benefits to properties within the zone was that the improvement value of new construction or substantial rehabilitation would be exempt from property tax. By abating the property tax only on improvement values for industrial/commercial properties, property taxation for eligible properties was transformed into an approximation of a split-rate or land value tax. The tax abatement for new construction and substantial rehabilitation seemed to spur redevelopment within the zone. The dollar value of industrial/commercial building permits within the zone increased from 8 percent of the city total to 21 percent of the city total, comparing a period after enactment of the abatement to the 3-year period preceding it. The enterprise zone in Peoria expired in 2013.

Hong Kong Transit[xxvi]

When Hong Kong was about to build its subway system, the city sold land above and around proposed transit stops to the transit authority (MTR). Once the subway was completed, MTR leased these lands to private developers. MTR is one of the few (if not the only) profitable transit operations in the world. Part of the reason is that the transit authority retains transit-created land values through developer lease payments to the MTR. This is not a land value tax *per se*, but is a clear application of the principle of land value return and recycling (value capture) accomplished with a land value tax. (A land tax would be less robust and capture a smaller portion of the transit-created land value that the MTR obtains through land leases.)

If a land value tax is beneficial, why is it so rare?
Every traditional property tax contains a land value tax. In this respect, land value taxation is almost ubiquitous. However, it is almost always combined with a tax on building values. Thus, it is rare for a land value tax to be imposed without a corresponding tax on building values. There are many reasons for this.

Lack of Understanding
Most people think of the property tax as one tax. They do not recognize that it is a combination of a land value return **fee** and a building **tax**. More importantly, most people do not realize that returning publicly created land value has significantly different economic impacts than taxing privately created building values.

Vocabulary
The words and phrases we use to discuss land speculation and taxation contribute to misunderstandings about the economics and fairness associated with taxation of land and buildings. When people buy and sell land for future appreciation, we often refer to this as "real estate investment." However, buying and selling land for future appreciation is not an "investment" as this term is defined in economic theory.

In economic theory, investment is foregoing consumption today to create something that enhances production or productivity in the future. In other words, someone might construct a building, hoping that future rents from the building will exceed the costs of construction and operations. This is an economic investment that entails some risk. If the risk of not making a profit materializes and the building is foreclosed upon, society still has a building that could eventually be put to use by someone. Although buying and selling land can be risky, it is not a "productive risk." Nothing of value is created by taking these risks. If land increases in value, it is generally not because of anything that the owner did. Increasing land value results generally results from external factors such as improved public infrastructure or changes in zoning rules.[xxvii]

In lieu of the term "land value tax," some have suggested using "land value return and recycling." In other words, if the public sector creates land value through public facilities and services, then that publicly created value should be "returned" to the public sector and "recycled" to help create and maintain the infrastructure that generated it.

RESOURCES

FHWA EDC-5 Value Capture: Capitalizing on the Value Created by Transportation

https://www.fhwa.dot.gov/innovation/everydaycounts/edc_5/value_capture.cfm

FHWA Center for Innovative Finance Support (CIFS) – Value Capture

https://www.fhwa.dot.gov/ipd/value_capture

FHWA CIFS – Land Value Tax

https://www.fhwa.dot.gov/ipd/value_capture/defined/land_value_tax.aspx

[i] For more information on Altoona's experience, see FHWA's fact sheet on land value taxation at: https://www.fhwa.dot.gov/ipd/fact_sheets/value_cap_land_value_taxes.aspx.
[ii] United Nations Human Settlements Program, Leveraging Land: Land-based Finance for Local Governments -- A Reader, 2016, https://unhabitat.org/sites/default/files/download-manager-files/Leveraging%20Land%20%20for%20LBF%20%20Reader.pdf.
[iii] Transportation Research Board, Guidebook to Funding Transportation through Land Value Return and Recycling, National Cooperative Highway Research Program Report 873, 2018, http://www.trb.org/Main/Blurbs/177574.aspx.
[iv] Development impact fees are discussed in FHWA's Value Capture Implementation Manual, which is available at: https://www.fhwa.dot.gov/ipd/value_capture/resources/value_capture_resources/value_capture_implementation_manual/.
[v] Rick Rybeck, "Avoiding Misgivings: Recycling Community-Created Land Values for Affordability, Sustainability, and Equity," Journal of Affordable Housing & Community Development Law, Vol. 28 No. 2, pp. 299-323, October 2019, p. 305, https://www.americanbar.org/content/dam/aba/publications/journal_of_affordable_housing/Volume28_Number2/ah_journal_10_18_19.pdf.
[vi] Alan Mallach, The Divided City: Poverty And Prosperity in Urban America, Island Press, 2018.
[vii] Federation of Tax Administrators, "State Sales Tax Rates and Food and Drug Exemptions (as of January 1, 2020)," https://www.taxadmin.org/assets/docs/Research/Rates/sales.pdf, visited September 15, 2020.
[viii] The World Bank, "Betterment Levies," https://urban-regeneration.worldbank.org/node/15, visited September 9, 2020.
[ix] Robert V. Andelson, ed., "Land Value Taxation around the World, Third Edition," 2000, pp 185-204.
[x] The statute of California of March 7, 1887, to provide for the organization and government of irrigation districts and to provide for the acquisition of water and other property, and for the distribution of water thereby f or irrigation purposes, and the several acts amendatory thereof. AKA the Wright Act of 1887. Now incorporated into the California State Code, Water Code, Division 11. Irrigation Districts [20500 - 29978]. In particular, §§ 23511, 23532, and 25650 authorize ad valorem assessments on land. See: https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=WAT&division=11.&title=&part=6.&chapter=2.&article=1.
[xi] Robert V. Andelson, ed., "Land Value Taxation around the World, Third Edition," 2000, pp 153-154.
[xii] Percy R. Williams, The Pittsburgh Graded Tax Plan: Its History and Experience, 1963, footnote #59, http://savingcommunities.org/docs/williams.percy/gradedtax.html#g128.
[xiii] Dan Sullivan, "Why Pittsburgh Real Estate Never Crashes," http://savingcommunities.org/places/us/pa/al/pgh/nevercrashes.html.
[xiv] Henry George Foundation of America, "LVT Jurisdictions and Rates," https://web.archive.org/web/20110419232223/http:/www.ourcommonwealth.org/news/lvt-jurisdiction-rates.
[xv] Proposition 13 is embodied in Article XIII A of the Constitution of the State of California. Section 4 of Article XIIIA prohibits special districts from imposing ad valorem taxes on real property or a transaction tax or sales tax on the sale of real property. Article XIIIA is available at: https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=CONS&division=&title=&part=&chapter=&article=XIII%20A.
[xvi] See MD Code Ann., [Tax—Prop.] §§ 6-302 and 6-303.
[xvii] Transportation Research Board, "Guidebook to Funding Transportation through Land Value Return and Recycling," NCHRP Report 873, http://www.trb.org/Main/Blurbs/177574.aspx.
[xviii] Mason Gaffney, "New Life in Old Cities," The Robert Schalkenbach Foundation, 2006, pp 24-26, http://www.masongaffney.org/publications/2006_New_Life_in_Old_Cities.pdf.

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[xix] The statute of California of March 7, 1887, to provide for the organization and government of irrigation districts and to provide for the acquisition of water and other property, and for the distribution of water thereby f or irrigation purposes, and the several acts amendatory thereof. Now incorporated into the California State Code, Water Code, Division 11. Irrigation Districts [20500 - 29978]. In particular, §§ 23511, 23532 and 25650 authorize ad valorem assessments on land.

[xx] Percy R. Williams, "Pittsburgh's Experience with the Graded Tax Plan," The American Journal of Economics and Sociology, vol. 22, no. 1, January 1963, https://www.jstor.org/stable/3484329?seq=1. See also Dan Sullivan, "Why Pittsburgh Real Estate Never Crashes," in Fleeing Vesuvius: Overcoming the Risks of Economic and Environmental Collapse (book), 2010, http://fleeingvesuvius.org/2011/06/02/why-pittsburgh-real-estate-never-crashes-the-tax-reform-that-stabilised-a-city%e2%80%99s-economy/.

[xxi] Percy R. Williams, "Pittsburgh's Pioneering in Scientific Taxation" republished as "The Pittsburgh Graded Tax Plan: Its History and Experience," Robert Schalkenbach Foundation, New York, 1963, footnote 59.

[xxii] Steven Cord, Incentive Taxation, October 1995, cited in Rick Rybeck & Walter Rybeck, "Break the Boom & Bust Cycle," Public Management, August 2012, pp 7-10, at Note 6. See https://www.justeconomicsllc.com/pdfs/ICMA-BreakBoom&BustCycle-Aug2012.pdf.

[xxiii] National Neighborhood Coalition, "Neighborhoods, Regions, and Smart Growth Toolkit: The Smart Growth, Better Neighborhoods Action Guide," 2003. Case Study: Two-Rate Tax in Harrisburg, p26, http://web.archive.org/web/20040610031846/www.neighborhoodcoalition.org/pdfs/content.pdf

[xxiv] Robert V. Andelson, ed., "Land Value Taxation around the World, Third Edition," 2000, pp 153-154.

[xxv] Robert V. Andelson, ed., "Land Value Taxation around the World, Third Edition," 2000, pp 159-160.

[xxvi] Lincoln Leong, "The 'Rail Plus Property' Model: Hong Kong's Successful Self-Financing Formula," McKinsey & Company, June 2016, https://www.mckinsey.com/~/media/McKinsey/Industries/Capital%20Projects%20and%20Infrastructure/Our%20Insights/The%20Rail%20plus%20Property%20model/The-Rail-plus-Property-model-Hong-Kongs-successful-self-financing-formula.ashx.

[xxvii] Martim Smolka and David Amborski, "Value Capture for Urban Development: An Inter-American Comparison," 2000, Lincoln Institute of Land Policy working paper, https://www.lincolninst.edu/sites/default/files/pubfiles/1279_Smolka%20Final.pdf.

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