A Land Value Tax for Colorado

Presentation to the Colorado Commission on Property Tax
5 January 2024

Agenda:
- What is a land value tax?
- Topic 1: Impact on housing development
- Topic 2: Impact on residential tax bills
- Topic 3: Impact on renters
- What are the real world effects of LVT shifts?
- LVT policy options
- Discussion

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Property tax is a combination of two very different taxes

Improvement value + Land value = Property value

E.g. typical home in Denver:

Improvements = $370,000 + Land = $280,000 = Total = $650,000
How to turn a property tax into a land value tax:

Cut taxes on homes, businesses and other improvements

Increase taxes on land values
These taxes have different economic effects

<table>
<thead>
<tr>
<th>Tax on Land Values</th>
<th>Effects</th>
<th>Tax on Property Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rewards construction</td>
<td>Impact on housing supply and affordability</td>
<td>Penalizes construction</td>
</tr>
<tr>
<td>More infill</td>
<td>Impact on land use</td>
<td>More vacant land &amp; sprawl</td>
</tr>
<tr>
<td>Not passed through to tenants</td>
<td>Impact on renters</td>
<td>Partially raises rents</td>
</tr>
<tr>
<td>More pro-growth</td>
<td>Impact on economic growth and investment</td>
<td>Penalizes growth</td>
</tr>
</tbody>
</table>
Current tax settings cause tax bills to rise when properties are maintained/renovated/redeveloped.

LVT removes this penalty, increasing the rewards for housing development.

Shifts the tax burden onto vacant and underutilized land, incentivizing right-size infill.
**Topic 2: Impact on residential tax bills**

Depends on the details of the LVT shift and how it intersects with exemption/abatement programs.

\[
\text{Intensity Ratio (IR)} = \frac{\text{Improvement Value (IV)}}{\text{Total Value (TV)}}
\]

With a revenue-neutral LVT shift:
- Taxes *fall* for properties with above-average IR (many improvements relative to land values)
- Taxes *rise* for properties with below-average IR (underutilized, valuable land)

Examples of average residential IR:
- Denver County: 0.62
- Larimer County: 0.82
Where is the land value?
### Topic 2: Impact on tax bills - examples in Denver

<table>
<thead>
<tr>
<th>Surface Parking Lot at 1914 N Broadway</th>
<th>Skyhouse Apartments at 1776 N Broadway</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2 acres of land, Zoned Downtown Commercial</td>
<td>1.2 acres of land, Zoned Downtown Commercial</td>
</tr>
<tr>
<td>Few improvements</td>
<td>280,000 sqft floorspace (~350 apartments)</td>
</tr>
<tr>
<td><strong>Assessed</strong> at $13 million, IR &lt; 1%</td>
<td><strong>Assessed</strong> at $160 million, IR = 92%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2023 Tax Bill: $318,000</th>
<th>2023 Tax Bill: $695,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under Small LVT Shift: <strong>+$13,000</strong> (+4%)</td>
<td>Under Small LVT Shift: <strong>-$6,000</strong> (-1%)</td>
</tr>
<tr>
<td>Under Moderate LVT Shift: <strong>+$425,000</strong> (+133%)</td>
<td>Under Moderate LVT Shift: <strong>-$185,000</strong> (-27%)</td>
</tr>
</tbody>
</table>
Topic 3: Impact on renters - theory

- Tax incidence depends on elasticities
- Land supply perfectly inelastic

- Unlike taxes on improvements, land taxes do not get passed on to tenants
- Shifting the tax base from improvements to land would increase housing supply and reduce rents
Topic 3: Impact on renters - evidence

Table 2: Results

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>OLS</th>
<th>OLS</th>
<th>GMM</th>
<th>OLS</th>
<th>OLS</th>
<th>GMM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
</tr>
<tr>
<td>log Statutory land tax rate</td>
<td>-0.451**</td>
<td>-0.230</td>
<td>-0.009</td>
<td>0.043</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.207)</td>
<td>(.107)</td>
<td>(.040)</td>
<td>(.038)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>log Effective land tax rate</td>
<td>-0.245**</td>
<td></td>
<td></td>
<td>0.023</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.111)</td>
<td></td>
<td></td>
<td>(.030)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>log Income per cap.</td>
<td>.630**</td>
<td>.428**</td>
<td>.446**</td>
<td>.190**</td>
<td>.145**</td>
<td>.141**</td>
</tr>
<tr>
<td></td>
<td>(.165)</td>
<td>(.119)</td>
<td>(.109)</td>
<td>(.071)</td>
<td>(.075)</td>
<td>(.068)</td>
</tr>
</tbody>
</table>

As the current analysis is the first cross-section regression on land tax capitalization in Germany it seems interesting to compare the results with regressions where the land value is replaced by the monthly apartment rent. As shown in columns (3) to (5) the results are quite similar. But, regardless of whether the statutory or the effective tax rate is used, there is no significance on the property tax rate. Obviously, the landlords are not in a position to shift the tax incidence of the land tax to the tenants.3

3Although this is a standard result in the literature, this is a remarkable finding in the German context, as generally the land tax is listed as part of the side cost (Nebenkosten) which are routinely forwarded to the tenants and are not subject to rent controls.

Abstract

We use a unique data set to examine the extent to which changes in the Danish land tax are capitalised into house prices. The Danish local government reform in 2007, which caused tax increases in some municipalities and tax decreases in others, provides plenty of exogenous variation, thus eliminating endogeneity problems. The results imply full capitalisation of the present value of future taxes under reasonable assumptions about discount rates. Consequently, the paper gives an empirical confirmation of two striking consequences of a land tax. First, it does not distort economic decisions because it does not distort the user cost of land. Second, the full incidence of a permanent land tax change lies on the owner at the time of the (announcement of the) tax change; future owners, even though they officially pay the recurrent taxes, are not affected as they are fully compensated via a corresponding change in the acquisition price of the asset.

Development in prices for single-family homes experiencing respectively a decrease and an increase in land tax rates

![Graph showing development in prices for single-family homes experiencing respectively a decrease and an increase in land tax rates.](image-url)
Idiosyncratic Land Taxes and Their Effect on the Real Economy

Daniel Murphy
University of Virginia

Nathan Seegert
University of Utah

November 13, 2023

Abstract

We show that land taxes are associated with higher density, neighborhood diversity, business formation, and other indicators of economic performance. To demonstrate this, we first estimate idiosyncratic land taxes (or subsidies) for over 2,000 counties in the US. We use the fact that property taxes are based on tax-assessed values rather than market prices. County assessors that, for idiosyncratic reasons, overvalue land relative to the market impose an implicit land tax. Consistent with these land taxes being idiosyncratic, we find substantial dispersion across counties in the US and within metropolitan statistical areas. Finally, we develop a model of land taxes and endogenous population to rationalize our results.

JEL: R14, H71
Keywords: land tax

In this article, we therefore conduct a thorough review of the rigorous empirical studies into LVT in Pennsylvania, to find out what the data tells us about the effects of shifting municipal taxes onto land. We find that LVT shifts in PA produced clear and consistent benefits: increased construction of housing and office buildings, less sprawl, more businesses, and higher property values overall. We proceed to explore each of these conclusions one by one, followed by an annotated bibliography that describes each study in turn. Finally, we bring these findings to life by exploring the downfall and revival of Pittsburgh over the past century.
LVT in the real-world: Pittsburgh

- Bourassa (1990): LVT shift led to a 13% increase in the rate of housing construction in Pittsburgh
- Plassman & Tideman (2000): resulted in 100 more houses/year
- Oates and Schwab (1997): helped stimulate the supply of commercial office buildings for nascent professional services industry

Pittsburgh went from taxing land at 1.4x the rate on structures in 1972, to 2.3x by 1991
LVT is endorsed by economists across the political spectrum

Over the past year, Daryl Fairweather, chief economist at the real-estate brokerage Redfin and one of the most widely quoted voices on the housing market, has become one of the land-value tax’s most outspoken advocates. She trumpets the policy on podcasts, headlines panels with names like “The tax policy that can fix housing” and tweets memes of President Biden in front of a whiteboard with the words “land-value tax” on it.

“Believe it or not, urban economics models actually do suggest that Georgian [land value taxation] taxation would be the right approach at least to finance city growth”

— Paul Krugman

Mayor Duggan touts economists’ poll backing proposed Land Value Tax; critics unconvinced

Dana Afinow
Detroit Free Press
Published 6:07 a.m. ET Nov 29, 2022 | Updated 8:06 a.m. ET Nov 30, 2022

Mayor Mike Duggan is touting the proposed Land Value Tax plan once again, pointing to national economists who support the plan.

The University of Chicago’s Kent A. Clark Center for Global Markets conducted a poll of national economists weighing the plan’s viability. Of the 31 respondents who addressed the question of viability, 92% agreed or strongly agreed that it would substantially boost economic growth and development over the next 10 years.

“Believe it or not, urban economics models actually do suggest that Georgian [land value taxation] taxation would be the right approach at least to finance city growth”

— Paul Krugman

So the question is, which are the least bad taxes? In my opinion the least bad tax is the property tax on the unimproved value of land, the Henry George argument of many, many years ago.

— Milton Friedman
LVT Policy Options for Colorado

Goal: Shift the property tax burden from buildings to land

Potential Approaches:

1. **LVT Shift/Split-Rate Tax**: create new property subtypes for land and improvements (across property classes) and raise assessment rates (ARs) for land, with offsetting reductions to ARs on improvements
2. **Local-Option LVT**: allow local governments to opt into an LVT shift/Split-Rate Tax System if desired
3. **Universal Building Exemption**: no change to taxes on existing properties, but create a universal tax exemption for all future construction & renovation/improvement value increases.
4. **Other options/suggestions?**

**Recommendation**: Our recommendation is that the state implement a split-rate property tax system. We are eager to work with the Commission to design a split-rate policy in conjunction with other recommendations.
Key Takeaways & Discussion

- The Colorado Commission on Property Tax is evaluating ways to provide tax relief while maintaining local budgets, including consideration of a land value tax (LVT).
- A revenue-neutral LVT shift increases the tax rate on land values, with offsetting tax cuts on homes, businesses and other improvements.
- By reducing taxes on improvements, LVT improves incentives for development. Evidence suggests that it boosts business activity and stimulates right-size infill housing construction.
- LVT shifts are neutral for the average homeowner, but tend to raise tax bills for relatively small or old buildings on high value land, and provide tax relief to apartments and multiplexes.
- Shifting from current property taxes to LVT is strictly better for Coloradan tenants as it replaces a tax which does raise rents and discourages housing supply with one which does not.