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by Steven B. Cord

Empirical Support for Land Value Taxation

I have recently discovered 237 empirical studies (there are many more) detailing the *empirical* impact of a land value tax. They indicate that if land assessments are taxed more to make up for the revenue lost by taxing building assessments and other produced things less, new construction & renovation spurt and most people pay less in taxes. There are also other benefits. I could find no empirical studies contradicting these results.

In brief: if the annual rent of land is collected in taxes, most people would get tax reductions and continuous prosperity would ensue.

Here is a summary of these 237 studies:

> 45 studies prove that when a town adopts land value taxation (LVT), a spurt in new construction and renovation results. In addition,

> 63 studies conclude that towns switching from taxing buildings to taxing land always out-construct and out-renovate their comparable neighbors, who presumably were subject to the same economic-growth influences.

> 83 studies concluded that most voters paid less with a revenue-neutral building-to-land tax switch. In 2 cases, most voters paid more (slightly).

> 30 studies concluded that LVT had various miscellaneous advantages (for example, generally tax defaults decreased, which is what you would expect if buildings and produced things are taxed less).

> 6 studies concerned farmers: in three studies, farmers essentially broke even with a shift to LVT, in one study farmers would pay slightly more, and in two studies farmers would pay slightly less. Australian farmers generally voted to adopt LVT.

> Endorsements were listed in 8 studies (but there are literally hundreds of endorsements by prominent authorities listed elsewhere).

Readers can obtain a copy of this 237 report by writing to me at 10528 Cross Fox Lane (E2), Columbia MD 21044 (cost \$12). But reading 237 summaries of these

empirical studies can be a real challenge to many readers, so this free report summarizes a representative 22 of them.

(1) The contiguous cities of *Allentown* and *Bethlehem* in eastern Pennsylvania are comparable as to size and economy. In 1997 Allentown became two-rate LVT. The difference between the land and building rates was expanded in each of the following four years while Bethlehem remained one-rate.

Allentown's new construction and renovation grew by 82% in dollar value in the three years after it adopted two-rate LVT as compared to the prior three years. Its new construction and renovation grew 54% faster than Bethlehem's new construction and renovation despite the infusion of much federal-grant money into Bethlehem (but not into Allentown) during 1997-99.

These figures are based on a study of city-hall building-permit data on file in the Allentown and Bethlehem city halls, done by Benjamin Howells (a science researcher and former Allentown councilman), William Kells (a science-oriented businessman), and Steven Cord (a professor-emeritus) in 1999. The study was summarized in *Incentive Taxation* (IT), 7/00, p. 1.

(2) *Washington* and nearby *Monessen* (both in southwestern Pennsylvania) are roughly comparable as to size and economy. After Washington became two-rate LVT in 1985, it saw its new construction and renovation *increase* by 33% in dollar value in the three years after two-rate adoption as compared to the prior three years. During the same time period, nearby one-rate Monessen's new construction and renovation *decreased* by 26%.

A report of this study, based on building-permit data on file in the Washington and Monessen city halls, can be found in IT, 10/88. Also see IT, 9/00 and 10/97).

(3) *Connellsville, Pa.* saw its new construction and renovation jump 3.46 times in the three years after it adopted a two-rate LVT property tax as compared to the prior three years. This jump can be compared to the rather modest 1.07 increase in nearby *Uniontown* during the same time period. The two cities are quite comparable, although Uniontown is somewhat larger and is the county seat (both of these differences are economic development plusses).

A report of this study can be found in IT, 10/97. It is based on building-permits issued on file in the Connellsville and Uniontown city halls.

(4) *Aliquippa, Pa.* – when it went two-rate LVT in January 1988, its three-years-after new construction and renovation jumped 97% as compared to its three-years-before. See IT, 10/91.

Meanwhile, nearby *Ambridge*, comparable except that it was closer to the Pittsburgh international airport and enjoyed a brisk tourist traffic at its Old Economy Shaker Village (both economic plusses) experienced a 30% *decline* in building-permits issued during the same periods of time. Nearby *Beaver Falls*, also comparable except that it was less hilly than Aliquippa and is the county seat (again, economic plusses), experienced a 7.2% *decline* during the same period of time.

In July 1993, the *Aliquippa School District* adopted a two-rate building-to-land switch in its property tax. Another spurt in new construction and renovation took place: for 1994-95, it was 2.3 times greater than for 1991-92 (based on building-permit records on file at city hall; see IT, 12/99).

(5) In 1989, *Clairton, Pa.*, an industrial suburb of Pittsburgh, was under direct state fiscal control, officially labeled "financially distressed." It took the advice of the prestigious Pennsylvania Economy League and went two-rate LVT, taxing building assessments at 2.105% and land assessments at 10% (instead of both at 3.7%). During the three-year period after the switch, its taxable building permits were 8.5% *more* than in the three years before. This is to be compared to the 5.8% *decline* in U.S. building permits during the same periods of time (based on building-permit records in Clairton City Hall; see IT 10/93).

(6) *Oil City, Pa.* adopted two-rate LVT starting in January 1989 and experienced a 58.2% *increase* in new construction and renovation in the three following years as compared to the three-years-before, while its nearby one-rate-but-otherwise-comparable neighbor, Franklin, Pa., experienced a 12.2% *decline* during the same time periods (based on a study of building-permits issued in the two city halls; see IT 11/94).

(7) *Pittsburgh's* long two-rate LVT experience has provided many studies: for instance, in the years 1980-84, when Pittsburgh was expanding the difference between its land and building property-tax rates, its new construction as measured by building-permits issued was fully 3.57 times higher, adjusted for inflation, than in the pre-change years of 1974-78, despite the steady post-1980 contraction of Pittsburgh's steel industry (source: Pennsylvania Economy League study of Pittsburgh's two-rate Graded Tax, 1985, p. 16). For the entire United States, 1980-84 office-building permits were only 1.6 times higher than for 1974-78 (*not* adjusted for inflation, per Daniel Sansbury, U.S. Bureau of Census, Suitland, Md. on 1/21/93 and as reported in IT, 10/93).

The boom in Pittsburgh continued: in 1985, its building permits increased 2.29 times over 1984; in 1986, it was 2.38 times greater than in 1984 (source: Pbg. Bldg. Inspection Dept.; also see IT 10/86, p. 2).

But there's something even more striking: after Pittsburgh increased its land-tax rate in 1979 and again in 1980, its construction increased an almost unbelievable 6.2 times faster than construction in the U.S. during the same period of time (sources: table 1194, U.S. Census report C30, and the building-permit annual reports, city of Pittsburgh).

(8) In other countries, there are many good studies of the effect of a building-to-land switch on construction. For instance, Godfrey Dunkley, a mechanical engineer specializing in the design and sale of fluid filtration equipment, extracted interesting statistics from the official Municipal Yearbooks of the government of *South Africa*.

Dunkley compared 1959 assessments to 1979 assessments and found that the one-rate towns (taxing land and buildings equally) increased their total assessments by 486%, the two-rate towns (taxing land more than buildings) increased by 561%, and the 46 towns that taxed only land assessments increased by 850%. Inflation affected all these figures, but note that the more a town taxed land values, the faster it grew.

Further substantiation: the eight towns that switched from one-rate to LVT-only increased their assessments by 748%, and the 15 towns that switched from two-rate to land-taxing-only increased by 996% (see IT 9/83). A later Dunkley study of a different time comparison yielded similar figures.

(9) Then there's the study by professors Wallace Oates and Robert Schwab, both of the University of Maryland, which reported that 15 large northeastern cities in the U.S. averaged a *decline* of 15.5% in their annual value of building permits issued between 1960-1969 and 1980-1989, but two-rate LVT *Pittsburgh* recorded a 70.4% *increase*.

Columbus, Ohio was the only other city in the study recording an increase - a rather modest 3.6% - but it had annexed some fast-growing suburbs in the interim (see IT, 10/92).

(10) In 1995, Professor Nicolaus Tideman of Virginia Tech University and his then-graduate student, Florenz Plassmann (now a professor at the University of Binghamton), completed a highly technical study of land value taxation in Pennsylvania entitled "A Markov Chain Monte Carlo Analysis of the Effect of Two-Rate Property Taxes on Construction." See IT 12/00 for the verbatim conclusion of the original study and the peer-reviewed *Journal of Urban Economics*, pp. 216-47, for the full study.

To quote from the conclusion of their original study: "The results say that for all four categories of construction, an increase in the effective tax differential is associated with an increase in the average value per permit. In the case of residential housing, a 1% increase in the effective tax differential is associated with a 12% increase in the average value per unit... From the perspective of economic theory, it is not at all surprising that when taxes are taken off of buildings, people build more valuable buildings. But it is nice to see the numbers."

(11) Harry Gunnison Brown, a leading economist in the 1930s, reported that suburbs of *Melbourne*, Victoria, Australia, which were about five rail miles from Flinders Street in the center of Melbourne and which taxed land values only, had 50% more dwellings constructed per available acre in the 1928-1942 period than those which did not. Making a similar comparison for suburbs seven miles out, the land-value-tax suburbs did 2.33 times better; LVT suburbs 9.5 miles out did twice as well.

(12) A *Pittsburgh City Council study* (1976) showed conclusively that a 1% earned income tax would hit the city's homeowners 3.59 times harder than an equivalent-in-revenue LVT increase. The same study also found that a two-rate LVT would down-tax 73.6% of homeowners.

(13) A *Washington, D.C.* council-authorized study done in the 1970s shows that if the current property tax were shifted from land and building assessments to land assessments only, then there would be these tax reductions: single-family homes - 18.1%, two-family homes - 20.9%, row houses - 14%, walkup apartments - 38.9%, elevator apartments - 22.5%.

(14) In 64 suburbs *outside central Melbourne* (Aus.), during the two-year period 1955/56 to 1957/58, there were 42 new factories, of which half were in the 17 localities using LVT-only. In addition, factory employment in these 17 LVT-only localities increased by 445 whereas in the remaining 47 localities, factory employment decreased by 361 (source: Aus. govt. statistics in "Public Charges Upon Land Values," a 1961 study prepared by the General Council of Rating [local taxing] Reform).

(15) Twelve studies in *rural Victoria* found that LVT-only towns averaged a construction-and-renovation growth of 29%, as compared to the growth of their real-estate-income-taxing neighbors of a modest 2.6% in the same period of time (source: GCRR study of building-permits issued as reported in *Progress Magazine*, Melbourne 3/75). In each case, LVT-only was adopted as a result of a poll only of landowners.

(16) If you fall through the earth, you will emerge near *Perth, Western Australia* (pop. 400,000). 17 localities there tax land values only; they experienced a 34.36% increase in the total number of dwellings between 6/30/71 and 6/30/76. The nine nearby localities taxing both land and buildings and presumably subject to the same economic-

growth influences, experienced a 0.02% decrease in the same time period (source: Aus. govt. statistics, as cited in *Progress*, 11/77, p. 10).

(17) In *North Dakota*, according to USN&WR, 4/3/78, p. 54, farmers paid no tax on farm buildings. A survey by a high official of the N.D. League of Cities revealed that this has encouraged new farm construction.

(18) *California Irrigation Districts* - A 1909 California law requires that when new irrigation networks are built, they were to be financed by a tax on the affected land values only; all privately owned improvements were to be property-tax exempt. The motivating theory was that publicly owned irrigation networks increased land values, so the expense of those networks should be borne by the affected landowners.

The result has been beneficial to the local farmers, particularly the smaller ones. The irrigated valleys are among the most productive in the world, and in 1914 the Modesto Chamber of Commerce stated, "as a result of the change many of the large ranches have been cut up and sold in small tracts. The new owners are cultivating these farms intensively. The population of both country and city has greatly increased... The new system of taxation has brought great prosperity to our district. Farmers are now encouraged to improve their property. Industry and thrift are not punished by an increase in taxes" (*Congressional Research Service*, "Property Taxation," p. 48).

(19) *Malvern, Australia* experienced a marked construction spurt after it adopted LVT-only in August 1955, but the most extensive construction took place in its blighted problem neighborhoods. Before August 1955, those neighborhoods accounted for only 22% of the city's building permits, but in each of the five ensuing years, that percentage jumped first to 35% and then steadily moved up to 47% in 1960 (these percentages are of continually larger construction figures; source - *Victoria Building & Construction Journal*, 1979).

(20) Tax defaults: in *New Zealand* in the late 1950s, ten large LVT-only cities had slightly less tax defaults than three large non-LVT cities. This would indicate that exempting buildings from local taxation does not increase tax defaults (the 1961 report of the Canadian Federation of Mayors and Municipalities, p. 31, by H. Bronson Cowan). See IT, 12/81.

(21) A city-funded 1980 study in *New Castle, Pa.* revealed that seven vacant and two poorly developed downtown sites would be an estimated \$150,851 more profitable to build upon with an LVT-only property tax. If county and school taxes were also to adopt LVT-only, then the extra profit would approximate an estimated \$243,750 a year.

(22) Assessment officials in both *Pittsburgh and Scranton, Pa.* wrote me that after these cities shifted some of their local property taxes from buildings to land, there were no significant changes in assessment appeals.

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For more information about LVT, consult www.EconomicBoom.info. I would very much appreciate all comments. Please send them to me at 10528 Cross Fox Lane (E2), Columbia MD 21044, 1-410-997-1182 or 1-800-252-3126, or stevencord@yahoo.com