9 *Mason Gaffney*

Two Centuries of Economic Thought on Taxation of Land Rents[1]

Professor Harry G. Brown often complained of a "conspiracy of silence" against the land tax idea. Certainly it has received more silence than its due, yet it would be hard to find a topic on which so many economists have rendered opinions and taken positions over the last two hundred years. I group these writers under five headings, according to their apparent sympathies towards the policy: (1) mainly negative; (2) mixed, or shifting and changeable; (3) noncommittal, detached, or supercilious; (4) positive but tentative, limited, partial, and remote; (5) mainly positive.

Many, indeed most, of those contributing to the debate had to be omitted to save space. On the affirmative side, some of these omitted are Henry George, Harry G. Brown, Thomas N. Carver, Eli Heckscher, Frank Graham, Lawson Purdy, Frederic Howe, Philip Cornick, Paul Alyea, Pierre Proudhon, Alfred R. Wallace, Joseph Schumpeter, Edward Polak, Philip Raup, Eli Schwartz, Arthur Becker, Raymond Richman, Marion Clawson, John Ise, F. F. von Wieser, Silvio Gesell, Charles Trevelyan, Walter Pollock, Thomas Paine, Thomas Jefferson,

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and the Count Destutt Tracy, Louis Post, J. C. Stamp, and Josiah Wedgwood. On the negative side, some notable omissions are Frederic Bastiat, Gustav Cassel, Robert Harvey, Alexander Hamilton, John Hobson, Manuel Gottlieb, Yetta Scheftel, F. H. Finnis, Elmer Fagan, Carl C. Plehn, Dean Worcester, Ezra Mishan, Walter Morton, Raleigh Barlow, Albert Schaaf, Murray Rothbard, and George Hoxie. In the uncertain middle I have neglected Henry Aaron, John and Ursula Hicks, Arthur Weimer and Homer Hoyt, Donald Hagman, Arch Woodruff, Laszlo Ecker-Racz, Irving Fisher, Ernest Fisher, P. H. Clarke, Charles McLure, Abba Lerner, Benjamin Franklin, Kenneth Boulding, Charles Gide, Frank Taussig, Arthur Laffer, James Heilbrun, Carl Bye, Albert Hirschman, H. G. Hayes, and Erik Lindahl. No doubt I have also neglected to acknowledge all those neglected. But I have tried to cover the major issues.

Mainly Negative

Large numbers of economists have, over the years, articulated their opposition to the heavy and exclusive use of land as a tax base, particularly in the thoroughgoing manner advocated by Henry George. Some have attacked the land tax directly; others have worked on the conceptual structure of the argument. They are grouped here according to their most emphasized or most distinctive lines of argument.

Fusing Land with Capital: Theory

J. B. Clark in *The Distribution of Wealth* (1899) led the assault on George by undercutting the distributive basis of classical economics, the threefold division of inputs into land, labor, and capital. Clark's work marks the watershed between classical political economy and neoclassical economics. George himself believed that this quantum change was designed to undo his influence. While this might seem paranoid today, we must remember that George was the best-selling popular economist of the time, indeed of all time – Laffer, Thurow, Galbraith, Friedman, Heilbroner combined – and it was no more unusual for an establishmentarian at that time to be anti-Georgian than for one to refute Marx today. It is not hard to imagine that Clark was also gunning for Marx. However, J. B. Clark states it is George's marginal theory of wages that led him to develop his own (1899, pp. viii, xiii). Charles Collier (1979, p. 270) supports George's claim. He cites Simon Pattern: "Nothing please a . . . single taxer better than . . . to use the well-known economic theories . . . [therefore] economic doctrine must be recast . . . it must isolate itself more fully from history . . ." (Patten 1908, p. 219). Frank A. Fetter also believes the "single tax agitation" is what moved Clark to reformulate theory (Fetter 1927, rpt. 1977 pp. 126–28).

Clark's obliteration of land as a category takes two forms. One is the idea that all factors alike have marginal products, so the laws of production are symmetrical. Rent is not set apart as a "residual," due to "differential" fertility, location, or other qualities. Land is productive too, so land rent is no longer a "surplus," but a payment for a productive input. This payment is a real and legitimate social cost, an opportunity cost of taking land from the best alternative use.

Actually, none of this much affects the case for taxing land. Residual imputation of rent is reconciled with marginal imputation via Euler's theorem, and the productivity of land does not say anything about who should receive the income. But Clark's recasting of theory did serve to block the mental pathway via which classical political economy pointed so sharply towards land taxation by calling rent a residual surplus. One still hears Clarkogenic arguments levelled against land taxation.

Yet more was needed, to preclude permanently any clear distinction of inputs. Marginal productivity, after all, is the tool of those who want to impute specific contributions to specific inputs, and this could lead to peculiar treatment of land. Clark's other stroke (1883, 1895–96) was to essay a capital theory that would remove the quality of capital that distinguishes it from land, namely that capital is produced by labor, wears out, and is replaced. This is a different Clark from the crystalline logician of *Distribution of Wealth.* This is a mystic who creates ectoplasm in lieu of material capital.

Clark's ectoplasm is permanent; similar to land, it has no finite life. Clark engages the energies of Francis A. Walker (1888) and Bohm-Bawerk (1895–96), and Clark's follower Frank Knight (1946) engages Hayek (1936) in fruitless debates in their strange efforts to deny that capital turns over. The Austrians have no difficulty understanding the differences of land and capital; Knight believes the distinction can not be made, and he attacks it with vigor. George Stigler, Knight's disciple, indicates that the Austrian idea of a period of investment is objectionable because it presumes a distinction between capital and land (1941, p. 278). Stigler's only objection to Clark is that Clark made too many concessions (1941, p. 317). The strongest argument for untaxing buildings while "up-taxing" land is that it provides an incentive to replace and renew decrepit and obsolete capital, which, unlike land, is both reproducible and depreciable. Clark and Knight's concept of capital as an ether of immortal spirits is calculated to silence such arguments by destroying the very words in which they might be made.

Philip Wicksteed parallels Clark. All resources are fixed. "There is no such thing" as a supply curve—supply merely reflects the demand of those already possessing resources. The laws of distribution are symmetrical. Rent is erased. "There is no surplus at all" (1914, p. 15). Wicksteed deplores the misleading idea of diminishing returns because it is so intuitive to hold land fixed and let labor vary, resulting in a residual to land. He prefers to make land the variable: "... in practical problems ... any individual can have as much land as he likes if he will pay the price. ... " (1914, p. 23).

The modern usage of "variable proportions" in preference to diminishing returns, and indifference curves in preference to either, reflects Wicksteed and the extended flight from identifying rent as a surplus attaching to land.

Vilfredo Pareto (1897) is the progenitor of "transfer rent." The evident effort is to erase classical land rent and instead replace it with a new concept of the same name and a meaning analogous enough to lend plausibility to the switch. Transfer rent is just the surplus above opportunity cost; any factor may earn some, with land getting no more than any of the other factors. This destroys the classical contrast that human effort is a sacrifice of leisure, comfort, and often safety, while land comes free as a gift from Nature.

Alvin Johnson (1902) developed the idea in America, with emphasis on undercutting the case for taxing land. Land is mobile economically among competing uses, and so yields no more transfer rent than other factors.

Pareto's idea is subtly blended with Clark-Wicksteed's factor symmetry; it is hard to trace it explicitly for many years until the work of Frank Knight. More careful users of transfer rent, such as Alfred Marshall, Joan Robinson, and Hubert Henderson, have been scrupulous to distinguish the social viewpoint from the individual, and social distribution theory from exchange theory. Robinson writes, "From the point of view of society, land ... is provided free, and the whole rent is a surplus and none of it is a social cost" (1933, p. 107). She uses only opportunity cost in partial analysis.

Knight, on the other hand, totally fuses the individual and social viewpoints. A cost to one is a cost to all. There is no aggregation problem, no fallacy of composition. Opportunity cost is social cost. There is no basis for distinguishing land from capital. "Killing off previous claimants" to land is merely an investment like any other; competition keeps the returns down to market levels (1924, rpt. 1952, pp. 167–69). It resembles a caricature of Chicago, but it *is* Chicago; it has been reprinted as a classic by the American Economic Association. Knight also argues (1953, p. 810) that slave-owners had just titles to slaves, because of society's sanction and open competition for capture of slaves. "Summary liberation" was unethical. "Society" was to blame and compensation was due. However, he does not say what tax should be used to finance the redemption.

"Choice" is everything. "Apart from a necessity of choosing, values have no meaning or existence." " . . . The cost of any value is simply the value that is given up when it is chosen" (1924, rpt. 1952, pp. 167–69). Knight is quite clear that this undercuts classical ideas about taxing rent. George Stigler tracks Knight faithfully (1947, chap. 7); Milton Friedman brings Knight to the masses. In private correspondence Friedman occasionally refers to the land tax as "the least bad tax," but inconsistently reverts to Knight's and Pareto's concepts which impute rents to everything and everyone.

Frank A. Fetter is a persistent critic of Ricardian rent. He would erase all distinction between land and capital, and evidently also between social and individual viewpoints, and give a broader reading to rent. He does not, however, arrive at any clear alternative, and ultimately he mainly appears to have carped and nit-picked at the classics, as well as repeated J. B. Clark.

Fusing Land With Capital: Applied Economics and Law

Some real estate economists, students of R. T. Ely, have merged land with capital on practical business grounds. Richard Ratcliff writes that "Net Income Can't Be Split" between land and capital (1950). Dorau and Hinman were saying much the same in 1928: practical real estate men cannot "unscramble the omelette" and split income between land and capital. Yet one can wonder how, if we cannot split net income, we can know what net income is, or even if any exists, since net income is cash flow less depreciation, and land is not depreciable. The Internal Revenue Code is very clear on this point. Frederick Babcock's *Valuation of Real Estate* (1932), generally regarded as definitive, devotes several chapters to splitting income between land and buildings. His approach is followed by A. A. Ring, Morris Shenkel, and many others.

Henry C. Carey (1840) is better remembered today as a popular crusader than a seminal theorist, but he was influential in formulating protectionist and expansionist thought in Lincoln's day. Carey had no use for land taxation, nor for any taxation that might obviate tariffs. He is enjoying a modern revival at the hands of Lyndon La Rouche (former U.S. Labor Party candidate for president, now a Democratic primary candidate). As a proto-Keynesian (but Anglophobic) mercantilist, Carey regarded classical political economy with deep distrust and sought to discredit Ricardo by claiming that cultivation actually progressed from worse to better land. This principle alluded to Westward migration into the fertile corn belt lands, a part of The American System which he and Henry Clay promoted. This was supposed to weaken the idea of differential rent, but it has not received much of a following. His more enduring point is that western speculators made no more on their dollars than other investors — hence, no surplus.

Carey's theme is repeated later in a much-noted study by Shannon and Bodfish (1929) showing that land speculator returns were no more than, perhaps less than, returns on other investments during the 1920s. Shannon and Bodfish conclude from this that no differential tax is justified. Here, economic surplus is implicitly redefined from Ricardian rent to the increments received from buying and selling rents capitalized into land titles. Pareto's redefinition of rent makes it only a surplus over opportunity cost. Carey-Shannon-Bodfish make it a surplus over a normal return on the historical purchase price. For Ricardo and George, of course, land rent is the whole surplus above zero, because land is supplied by Nature, and they look at social issues from a social viewpoint.

Willford King (1921, 1924) fuses land and capital when he writes that capital itself would yield no profit above its costs were it not for the rise of land values. The speculative increase on land yields the return to capital. Evidently, he is describing investments in new buildings built on land already speculatively valued, and entered as a cost — a common situation today, where investors buy into "negative cash flows," and hold on. This is then a modified version of Carey-Shannon-Bodfish. Once one buys land at a speculative price, rising rents are necessary to yield a normal rate of return.

Frank Knight, we have seen, joined J. B. Clark in denying or obscuring in metaphysics the most distinctive qualities of capital vis-à-vis land, to wit its formation, migration, consumption, and replacement. Knight (1953) goes on to develop the doctrine of vested interest acquired by innocent purchase of land at advanced prices, a doctrine held by Francis A. Walker, J. S. Mill, and many others. Once society has let this happen it has endorsed and underwritten the contract, regardless of the origins of rent, and it would destroy confidence in contracts to act otherwise. Land becomes the moral equivalent of man-made capital. This presumably occurs some time after the first owner invests economically in "killing off previous claimants," as Knight puts it.

However one regards Knight the moralist, he is a bad lawyer. Few things are more basic to our Common Law than the underlying ownership by the sovereign of the regal estate — now called "real estate." This follows logically from the sovereign's monopoly of deadly force used to acquire land. Titles originate with the sovereign, who reserves paramount rights to condemn, police, regulate, zone — and tax. Titles are held subject to taxation, and tax liens are prior to private liens. That is the legal contract with the title holder. Anything more is based on sentiment and political clout, not contract. Still, the innocent buyer doctrine has put down many potential socializers of unearned increment. Granted, they say, that many landholders have grown rich in their sleep, yet there are others who bought in recently at high prices. It would be unfair to injure them, and so we must spare all.

It is ironic, then, to look at the detail of California's Proposition 13 of June 6, 1978, which applies exactly the reverse doctrine of innocence. Proposition 13 spares the ancient holder, he who innocently rode up the price escalator through no "fault" or desire of his own. High prices are the fault of recent buyers. The Proposition punishes these recent buyers by raising their assessments, while freezing others. Nor is this an inadvertent result; it was the major discussion point of Howard Jarvis, the measure's creator.

Equally ironic is the suppression of latent land values by low-density zoning. Many "innocent" buyers have lost out, as have their numerous lawsuits alleging inverse condemnation and demanding compensation. An equal confiscation of value by taxation would put billions a year into the fisc, to increase services or reduce other taxes. Yet, increasingly restrictive zoning blankets the country. The same developers who fight it where they build support it where they live. Only a few of Frank Knight's modern Chicago knights have raised a lance against it – it is easier to pick on rent controls.

We conclude that the innocent buyer doctrine is only a good debating point, but not a binding constraint in the real world of our institutions and cultural baggage. Law and custom say that land is different, and no buyer is presumed innocent or "lacking in worldly knowledge" about his risks. We never promised him a rose garden, and he probably knows it. He only plays dumb because it often works.

Fusing Land with Capital: Collectivist Approaches

Karl Marx is a strange bedfellow for Frank Knight. Although sometimes discoursing lengthily on land rent, he generally merges it with capital and its "mode of production." He often sacrifices consistency and clarity to sarcasm and invective, but the real Karl Marx stands up in *Capital* (1867, rpt. 1906, vol I, chap. 33). He attacks Wakefield's Australian scheme for locking up the frontier at high prices, in order to throw workers back into the arms of employers. This was a plan to create an artificial scarcity of land; its effect should be to increase rents, land values, and the bargaining position of landholders. But for Marx, the scarcity of land only increases the bargaining power of capital. He totally transfers the gains of land to the accounts of capital, even though "the old world constantly throws in capital" (1867, rpt. 1906, p. 843). Marxian distribution theory, like Clark-Wicksteed-Knight, thus fuses land and capital. But where Clark et al. simply stir them up, Marx subordinates land to capital. For Marx, capital has the superpowers of Mephistopheles; it seizes all surpluses, however generated, even though its supply is elastic.

When we ask what Marx means by "capital," we find Clark-Knight again. ". . . The value of commodities . . . in the circulation . . . of capital, suddenly presents itself as an independent substance . . . in which money and commodities are mere forms which it assumes and casts off in turn" (1867, rpt. 1906, p. 172). "Land as capital is no more eternal than any other capital" (1847, p. 138). It is fascinating to speculate on whether Clark the Rightist knew he was borrowing from Marx the Leftist. Certainly they shared a common purpose, that is, to destroy the case for land taxation as advanced by Clark's target, George, and Marx's target, Proudhon. One wonders, too, if they read the transcendentalists and Hindu mystics, for they both, like Knight later, seem to have enlisted the Hindu's Brahma for economic analysis. In any case, Marx, like Clark-Knight, uses these concepts to create a paradigm in which it is impossible to perceive the rationale for land taxation, a concept which to many neo-Marxists is simply meaningless.

Another strange bedfellow for Marx is Charles Spahr (1891) who has his own way of fusing land and capital. Spahr sees land value produced not by all men but by the good people collectively. Spahr identifies certain groups whose presence lowers land values, and who, therefore, have no claim to share in them. He mentions American Indians and "the most degraded negroes." Hungarians, Italians, and Bohemians are a wash at best. Anglo-Saxon laws recognize that land value results from improvements, public as well as private. The old owners paid for these individually and collectively, so they created the land value.

Spahr would then of course keep all wealth private, both land and capital; in contrast, Marx would socialize both land and capital. The common theme is a denial of George's effort to compromise by distinguishing land values, publicly created, from capital created by private effort and sacrifice. Together they sow the seeds of irrepressible conflict between Communism and Capitalism.

Let us end with the utopian socialists and others who say, "you cannot unscramble an omelette." Production is collective, they say, and imputation is futile (Russell 1945, rpt. 1967, p. 612). Better to drop the effort and distribute "to each according to his needs." There is a good deal of this in the advocacy of income taxation, too, "from each according to ability." In the long run this leads to collectivism, of the right or left, limited only by the emigration of those with high ability and low needs (as perceived by the authorities).

Inelastic Supply of Capital

C. B. Fillebrown (1907, 1914, 1916; see also Marling, pp. 40, 44), a George follower, published a sly argument based on Seligman's doctrine of tax capitalization. The doctrine said that land taxes serve to lower selling prices, so new buyers buy "free of tax," which all falls on sellers. Very well, says Fillebrown, let us go on from there. Owners of capital are paying taxes; owners of land are not, even though they appear to, because they bought free of taxes. To make landowners pay equal taxes, then, we may raise the rate each year by a surtax rate equal to the whole tax on capital. After a few years, *voilà!* We shall have the single tax.

This was too provocative to ignore. T. S. Adams (1916), H. J. Davenport (1917), and E. R. A. Seligman (1916) replied that if taxes borne by capital lower the after-tax return on capital, they divert investors into land until prices rise, equalizing the return on all investments. The new owner may buy clear of land taxes, but he is indirectly taxed by taxes on capital which lower the capitalization rate and raise the price of land. An old tax is a good tax because the market has adjusted to it; any change will hurt someone, and Fillebrown is rejected. One wonders what the world would be like today if all other new proposals, such as the Sixteenth Amendment, had to meet the same test.

Davenport and Seligman went on to adumbrate a theory that is hard to distinguish from what is now called the "Harberger thesis." In a closed economy, taxes on capital are borne by capital and are substantially neutral, provided the coverage is total, because capital has no escape routes. Total capital stock is virtually fixed in the short run because current saving is small next to the accumulated treasure of centuries. Besides, it is not known whether a lower net return after tax will raise or lower saving.

Where, says Seligman rhetorically to George, is all this capital to come from to fill the vacant lots? There is no fund of capital floating in the air – it can only come from other uses (Seligman 1895, rpt. 1923, chap. III, sect. 3). The metaphor and the idea both actually originate with Charles Spahr (1891, p. 632). There is the hand of J. B. Clark here, too. Clark assumed a "static" economy with "fixed" resources. Thus by assumption capital is fixed, like land. A "static" economy is akin to a closed economy: capital is fixed.

Jens Jensen, although not given to unequivocal affirmations, joins in this group: ". . . the property tax on producers' goods must rest largely on the owners of capital in general in the form of a lower interest rate . . ." (1931, pp. 61, 90). This is because the supply of capital is fixed.

It is easy to see the magnetism of this idea for the 1960 Chicago school, with its emphasis on scarcity, and allocation of fixed supplies. Only the

Utopian Keynesians thought you could pull new capital out of the air, and they saw investment, not saving, as the effective constraint on capital formation. It was natural for monetarist Chicagoans to differentiate themselves from Utopian Keynesians who promised suspiciously too much — higher employment, plus capital formation as a free lunch. Thus Chicago's Harberger replicated Seligman-Adams-Spahr-Jensen and supplied a rationale for taxing capital. Capital is as good a base as land, provided the tax be uniform, the supply fixed, the economy closed, and the flow of investment adequate. Chicago rejected the assumption of Netzer and Musgrave that capital taxes are shifted.

Meanwhile, the Keynesians of the '60s were rediscovering one, if not all, of the wheels on the carriage of Henry George. As had George, they pulled new capital "out of the air"; following George's ideas, they did it by favorable tax treatment. Unlike him, their vehicle was the income tax; and unlike him, they made labor pick up most of the revenue losses. Yet, there is a promise (or a threat) in their tax policies of converting the corporate income tax, and the property part of the personal income tax, into taxes on land income, with capital virtually exempt. It may not be coincidental that Walter Heller (1954) wrote in favor of taxing land in developing countries and studied at Madison where, we will see, John R. Commons advocated accelerated depreciation as a Georgian tool.

Jacob Stockfisch (1956, 1957), who with Earl Rolph (1954) kept Adams-Spahr-Seligman alive and anticipated Harberger, points out explicitly the Georgian implications of income tax loopholes. The effect of accelerated depreciation, investment tax credits, and expensing capital outlays is to exempt an increasing share of capital income from the tax base, leaving nondepreciable land bearing the brunt. While Georgist frontal assault waves were breaking against the rock of local property taxes, Keynesian subtlety was transforming the income tax. Stockfisch seems to view this transformation negatively. However, he identifies a tax development that Georgists let pass unrecognized as a move toward their preferred reform.

To be sure, Stockfisch overstates the case. Tax-cutting Keynesians who gave investment incentives for capital were also leaving many loopholes for land income. They were also piling up payroll taxes on workers, taxes George would have execrated. And yet, like George, they had a dream, a dream that untaxing capital could pull new capital out of the air, and spin off multiplied increased output and jobs. If the methods were different, the expansive optimistic spirit was alike, and quite at odds with the limited resources, competing ends, astringent skepticism, and expensive lunches of Chicago.

And so we find the "conservatives" Spahr, Jensen, Seligman, Adams, Davenport, Knight, Rolph, Stockfisch, Harberger et al. rationalizing the taxation of capital. Meanwhile the "liberal" Georgists and Keynesians rationalize untaxing it, linking up with various right-wingers who must find their Chicago allies' position baffling, and alienating many left-wingers who view capital only as Robin Hood viewed the fat monk's purse. It is a confusing paradox that Chicago and other conservatives should line up with the Left on an issue so central to economic ideologies as the taxation of capital. One root of this paradox is the traditional reaction to the single-tax drive to replace capital with land in the tax base. In this context, taxing capital is the conservative position. Frank Knight is the pivotal figure. He dominates two generations at Chicago; his relentless antipathy to George lies between the lines of much of his work and locks his followers into a paradigm that guides them away from taxing rent.

If uniformity can make the taxation of capital efficient, so can it make other taxes efficient. We find much of the world accepting general income taxes for this reason, and now increasingly general sales taxes and next VAT. Forward shifting and the excess burden of indirect taxation are "excise tax effects," not the effects of general taxes. General equilibrium analysis, and theories of second-best all point toward this policy finding.

Ragnar Frisch (1939) used such a course of thought to attack Harold Hotelling's basic article on marginal-cost pricing. The attack was equally levelled against Hotelling's corollary case for taxing land to meet the deficits of marginal-cost pricing with decreasing costs – a case William Vickrey has adopted and developed. Yet a uniform sales tax applied indiscriminately both to increasing and decreasing cost producers is inherently inefficient, for reasons Hotelling gave: it is more efficient to subsidize the latter. Still, much of the later writing on welfare economics follows Frisch, undercutting Hotelling's principles and the implementation of marginal-cost pricing with theories of second-best and all that (Little 1950, rpt. 1960, appendix IV).

The other troubles with uniformity as a working guide are that there are not closed economies and there are no truly uniform taxes. Taxes on capital drive it away – the local supply is never fixed. In an open economy only one thing is closed, and that is the land supply. Tax jurisdictions are defined as areas of land; capital and people move in and out. So skeptics of the Harberger-Seligman-Spahr approach, such as Netzer, still have a lot to say about the excess burden of indirect taxation and the superiority of land as a tax base. As for Gaffney (1971), his reasons for believing the property tax to be progressive do not include a full subscription to the Harberger thesis, or any belief that the U.S. economy is more than partially closed.

The Social Functions of Land Speculation

Richard T. Ely advanced a theory of "ripening costs" to explain the function of land speculation. By holding land idle until the rise in value, he says, "I perform social service" (1920, p. 127). The service is to preempt land from premature underimprovement, while it ripens to a higher use. Holding costs – the unrealized latent rents – are the "costs of ripening." Land taxes force premature use at less than optimal intensity.

Ely's idea had a strong following in the 1920s, followed by a crash in the 1930s, after which Ely and Wehrwein ruefully accepted the revised metaphor of Simpson and Burton (1931, p. 44): "We speak of land ripening, but this is putting land into cold storage, and loading the community with the frozen assets that result." The pros and cons of the doctrine are easily subsumed today in the modern rule of planning the timing of a series of replacements over time so as to maximize discounted cash flow.

Ely's idea was briefly revived by Donald Shoup (1970) and Peter Mieszkowski (1970, p. 17), but not pushed. Roger Smith (1979) and Louis Rose (1971) have kept it alive, and John Krutilla has applied it to the preemption of scenic resources. But these modern statements are much more careful and limited than Ely's sweeping generalization; Krutilla's avoids tax issues entirely. It is not necessary to frame the question in the emotive pugilistic style of the 1920s. It is not a gut question of whether individual landholders serve any function, but rather how that function is affected by taxes. Shoup, Rose, and Smith suggest that land taxes motivate premature conversion. Gaffney (1970, 1973b), on the other hand, emphasizes that building taxes delay conversion. Ely's soul marches on in the political movement for preferential assessment of ripening land. Whether Ely originated the idea, or, like some composers, merely picked up an old folk tune, we may never know. Nevertheless the idea persists. It thrives in our times because urban sprawl has brought dreams or fears of ripening to so many more lands than ever before that every country Muzak box plays Ely's tune.

Ely also objected to calling land supply "fixed." A high price induces more supply, man-made. He interpreted many capital improvements, land use conversions, migrations, discoveries, and substitutions of capital for land as actually "increasing the land supply." Many neoclassical economists approve of this locution, which helps excuse them from rationalizing rent as a surplus. Orris Herfindahl (1974), the neoclassical mineral economist, saw mineral rents as mainly a return of discovery costs – a position I like to believe he would modify if writing after OPEC. He reflects the Chicago compulsion to rationalize markets so perfectly that there is no unearned wealth except by chance, and even then, it is a functional reward for taking chances (see Gaffney 1979).

J. B. Clark (1899, pp. 85-87), H. J. Davenport (1917), and B. H. Hibbard (1930) identify another function of land speculation, that of hastening the conquest of the frontier. "The lure of unearned increment" drew pioneers westward earlier than otherwise. Land taxation would put a damper on this "rent-seeking" behavior, which Clark and his followers regarded as beneficial, and slow down the early development of frontiers that were otherwise submarginal. Alvin S. Johnson claims the same effect in cities: unearned increments lead men to build in anticipation of future demand. Rising land values in boomtowns cause "overbuilding," a desirable outcome (1914, p. 35). At the same time, rising land values keep farmers from leaving for the city (1914, p. 34). B. M. Anderson (1914) refutes these positions, apologizing at the same time for siding with the single taxers.

To Ely, the function of land speculation is to delay use. To Clark et al. speculation serves to advance use. None of these economists sought to reconcile their polar positions, but instead united in their criticism of land taxation, which Ely said would bring on new land too soon, and Clark et al. said would delay it. George himself intended land taxes to act on the better lands, causing infilling and full use, and obviating premature recourse to marginal lands. *Progress and Poverty* is filled with complaints against urban sprawl and scattered rural settlement.

Davenport (1909) also raises the soil conservation issue. He believes that land taxes encourage soil mining, looting, and abandonment of erosive soils (and, by extension, of other extractive resources). This is also a theme of Seligman.

F. Y. Edgeworth writes that land taxes would inevitably bite into building profits, that builders' and buyers' fears would magnify the deterrent to build, and bankers' fears would doubly magnify the problem. The tax would hamper raising money on the "security of the premises." Edgeworth also objects to "forcing the market," and anticipates Ely's ripening cost doctrine – speculation is reserving land for a higher use. "In fine, the interest of monopolists is not always contrary to that of their customers" (1906, p. 73). The mood of Edgeworth's prose is more querulous than mordant, and he concedes some limited role for taxing unearned increments. The limits, however, are clearly his primary interest.

Edgeworth's point about land as collateral for loans is not found in other scholarly critics, and he himself gives it only a Parthian shot – and wisely so. It is clear in theory and experience that untaxing buildings improves the credit of builders as such; taxing land weakens the credit of holdout land speculators and helps shift land to builders. Yet, Edgeworth's point has an active life in political campaigns that touch anywhere near our subject. Lessees on Crown land in British Columbia, for example, successfully oppose the Crown's extraction of market rents by pleading their credit ratings, used to attract eastern capital "for the benefit of all."

Local Land Taxes as a "Tragedy of the Commons"

Alfred Marshall, who sees much merit in land taxation, also sees it as overcrowding central cities, and proposes that some land tax revenues be earmarked to a "fresh air fund" to offset this damage. Leonard Darwin (1907) carries this much further than Marshall. However, Edward Polak (1915) replies that cities generate more positive than negative spillovers.

A more challenging negative comes from Edwin Cannan. Cannan defends taxing buildings on the now familiar basis that they increase local public costs, and in proportion to building value (1907, p. 39). Buildings receive more services in large cities than small, so untaxing them will subsidize congestion in central cities. Free services to urban building create something analogous to a "tragedy of the commons," overcrowding cities and destroying rent (1907, p. 44).

Although Cannan's style is partisan, and much of his work unimpressive, this point is basic; he desperately wants an answer in light of today's exclusionary zoning and related policies. Cannan's argument needs adapting today when the suburbs outdo the central cities in their fear of fiscal parasites. Yet it is fiscal sharing more than physical congestion that concerns Cannan. His logic leads towards pooling tax revenues of whatever kind at higher levels of government, as proposed by Colin Clark. It is perhaps the great weakness of most Georgians that they have persisted in pushing land taxation purely as a local policy, thus leading right into Cannan's powerful rebuttal which currently is sweeping the field.

Inadequacy of Land as a Tax Base

Spahr (1891) and later Seligman (1895, rpt. 1923) write that marginal communities have little land value and hence no land value tax base. This is consistent with their belief that taxes on capital are borne by capital (for if local capital taxes come instead out of land rents, then a direct tax on land is simply a more efficient way of tapping the taxable surplus, which cannot exceed rent anyway [Andelson and Gaffney 1979]). It is at odds with their belief that farmers bear most of a tax on land values, a contradiction so glaring that Spahr and Seligman have little message for today. In retrospect, Edwin Cannan had a stronger point. He did not question the adequacy of rent, but the efficiency of locational incentives created by socializing rent through local taxation.

Many economists have questioned land's adequacy as a tax base. Ernest Kurnow is the most recent and quantitative of these (1959, 1960, and 1961). Gaffney has criticized his procedures elsewhere (1970, pp. 180–81).

Jens Jensen notes that land taxes are capitalized, but the value of capital has to remain at its cost of production. He sees capital therefore as able to yield "enormous revenue" compared to land (1931, p. 91). The opposite view is that local taxes on whatever base are shifted into land values. John A. Zangerle (1927) takes this view, tracing it back to John Locke (1692) and Jacob Vanderlint (1734). The physiocrats also held this view, as did Adam Smith. Gaffney has elaborated on this theme (1970), citing Paul Douglas, Bronson Cowan, and Ebenezer Howard, among others. A curious twist is that the arch-critic Alvin S. Johnson sees land rent as much more than adequate to cover all public needs (1914, pp. 29, 30).

Wide Distribution of Landownership

Alvin S. Johnson's major theme is that single tax is "a device for the spoliation of the middle class" (1914, p. 30), because they own most of the urban land, and all the farmland. Charles Spahr (1891) had earlier sounded the same note. E. R. A. Seligman (1895, rpt. 1923) takes relish in quoting Voltaire's satire *L'Homme au quarante écus,* accusing the physiocratic land taxers of a regressive proposal, hitting the poor people who own all the land. It is fascinating to read these pre-econometric economists who issue facts on their own authority without data.

General Francis A. Walker (1883a, rpt. 1898), director of the U.S. census, president of M.I.T., and first president of the American Economic Association, did have data. He pointed out that the average size of farms in 1880 was small, and growing smaller, contrary to George's allegation of increasing concentration. George objected to the use of a simple mean; he wanted to know how much was held by the largest few. He never used the term "Lorenz Curve," but that was the idea. Walker, trapped in an untenable position, tried to shoot his way out in an exchange that must have embarrassed him (Walker 1883a, rpt. 1898, May, June). It is perhaps due to this exchange that in 1900 the census began collecting data on farms ranked and grouped by size. There was no retroactive count, but the trend from 1900 to the present is one of rising concentration.

Later critics have avoided this issue, other than mentioning it incidentally in connection with the question of whether the *general* property tax is regressive. Here the main germane issue becomes the corporation. Several studies show corporate shares to be held more closely than "real estate." Many property tax opponents conclude from this that property taxes exempt the wealthiest. I am not aware, however, of any systematic study refuting the belief that corporations are our major landholders, as documented in Gaffney (1970).

Mixed, or Shifting and Changeable Positions

Francis A. Walker thought that George overstated his case inexcusably. We have discussed Walker on his feelings about concentration. He also attacks George's forecast that rents will continue to rise with increased population, because the evolution of technology is labor-saving and resource-using, and because higher incomes lead to higher demand for land. Walker cites M. Leroy-Beaulieu, "an economist and statistician of eminence," who said that rent "will soon disappear altogether" (Walker 1883b, p. 147). Chicagoan Theodore Schultz (1953) says much the same.

In truth, the periodic collapse of land values in our history of cyclical territorial expansion has weakened support for land taxation; George's forecasts were overdrawn and premature. But now, one hundred years later, land values are looming up as George warned.

Walker's hostility to George is more stylistic and personal than substantive. Walker remains a Ricardian, and tackles J. B. Clark for treating capital as though it were fixed, like land (1888, pp. 417–35). In *Land and Its Rent,* after a furious attack on George, Walker still says in regard to the rights of property, "property in land stands lower, much lower in the hierarchy than property in capital" (1883b, p. 198). Before he is through, the eminent M. Leroy-Beaulieu "can command little conviction" (1883b, p. 191).

Five years later, Walker has mellowed so far as to accept land taxation as reasonable in principle but impracticable in implementation (1888, pp. 415–17).

Alfred Marshall (1920, rpt. 1947) improves upon Ricardo by contributing a new concept, the "public value of land," to help define the desired tax base. Ricardo wrote mainly of farmland and fertility differences and perverse readers persisted in taking this narrowly. Marshall's public value is what George means by "community-created" value, the joint product of nature, location, public works and services, settlement, and community synergy. Marshall realizes that urban location values are outgrowing farm values, and he provides an appropriate concept.

Marshall also develops a lucid statement of how high urban land costs cause intensive land use by actuating substitution of capital for dear land

(1920, rpt. 1947, chap. XI). Marshall is also clear that "from the economic and from the ethical point of view, land must everywhere and always be classed as a thing by itself" (1920, rpt. 1947, appendix G). He seems to favor a kind of creeping land tax.

But Marshall is ambivalent and cautious, the very type of Harry Truman's two-handed economist. For every proposal there is a caveat, for every aid to one side, comfort to the other. Any change should be slow – during one 1883 lecture, he discusses the merit of nationalizing land interests after one hundred years (1883, rpt. 1969). It is a sobering thought that that centennial is now only two years away.

Marshall also contributes new concepts for the Omelette School, which resist unscrambling land and capital. Durable capital earns "quasi-rents," in the short run just like land rents. Big land developers consciously create values that spill over onto neighboring lands that they own. The supply of *national* capital is fixed, so a uniform national tax on building values is neutral, and not shifted (this is the "new view" Harberger thesis again).

Marshall distinguishes "onerous" and "beneficial" local taxes. An "onerous" rate is one which taxes property to provide services to people – for example, "a poor-rate levied on the well-to-do" (1920, rpt. 1947, p. 794) – and so fails to give back to property a service equal to what it pays for. This is cousin to Cannan's tragedy-of-commons case against taxing local land values to provide services that attract immigrants and congest cities. But where Cannan focuses on people moving in, Marshall sees the wealthy moving out to the suburbs. Having raised the issue, however, Marshall characteristically minimizes it – he says that the rich cannot escape because tax jurisdictions are widened to catch them in their new locations.

Still, Marshall provides the framework for today's mischievously potent slogan, that property should pay only for services to property. These are "beneficial"; services to people are "onerous." The viewpoint is clearly that of the local landholder.

Marshall resented Henry George's influence in England, and in 1883 he took the stump against him. As with Walker, differences of style overrode substance, and no doubt George seemed a cocky intruder in Marshall's nation and profession. George developed his attitudes in a land that either belonged to the national government or was only freshly granted to private holders; Marshall's England had its own history. Marshall mainly objected to the immediacy of George's reforms.

The mature Marshall never published these immature polemics, and wisely so. George Stigler (1969) has exhumed them, possibly in the belief they show the real Marshall. But yet another George (Prime Minister

Lloyd) did win Marshall's support for a British land tax when he proposed it in 1909 (Hutchison 1969, pp. 248–49, n. 50). The real Alfred Marshall is probably the one who stood up when push came to shove in his native land. Hostility to an invader is one thing: conviction on principle is another.

A. C. Pigou (1949) takes a fairly clear stand in favor of using Marshall's public value of land as a tax base, "a moderate tax assessed at a moderate percentage," in a family of "different imposts." Its strong point is its perfect "announcement aspect," i.e., its unavoidability and unshiftability. It rates poorly on horizontal equity (Pigou takes "income" as the base of reference for "equity," without regard to sources); but rates well on vertical equity. An added attraction is automatic recoupment of betterment.

Pigou contributes the important concept of "announcement effect." Some prior economists wrote simply of taxing rent, without usually specifying much about the actual method. Pigou likes the tax because we can "announce" it to the taxpayer as a lump sum for the year, based on an outside assessment, independent of taxpayer activity. It is not clear if some earlier writers always had this in mind, or would tax rent as realized, ex post. Today, most discussion, pro and con, premises Pigou's concept of a tax on presumptive or "notional" rent, as revealed by assessed land value. This unfortunately confuses two questions, because there also are income taxes on rent, and there is a case for letting taxes vary with short term changes in realized rent (as when prices widely vary). It is too bad Pigou never pursues this lead further. It has been left to analysts of leasing methods to choose among different ways for a landlord to "announce" rent to a tenant, and the field is beginning to yield a vigorous literature. Among land taxers, we will see John R. Commons emphasizing the use of income taxation to collect rent.

Karl Marx wavers in a love-hate relationship with land taxation. Mostly it is hate. The *Manifesto* (Marx and Engels 1848, rpt. 1959), demands "application of all rents of land to public purposes" (Plank 1), but the means is never explained. The allied demands include forced labor (Plank 8), the reverse of what land taxers intend. Still, the unfinished posthumous vol. III of *Capital* (1867, rpt. 1906), pieced together by Engels, is half about ground rent. However, in *The Poverty of Philosophy* (1847), Marx attacks Proudhon for pushing a tax on rental income. He marshals technical problems of separating land and capital, but more basically he objects to a reform so easily accommodated within the capitalist system of market pricing. He suggests that rent might better be distributed by lowering consumer prices – a process familiar enough to domestic producers of "old" oil and gas today, and consistent with

Marx's disdain for conservation. Marx also is leery of a proposal animated by a decentralist bias, his own being the reverse. Marx seems at times to say that only farming yields rents, because of diminishing returns, while manufacturing yields none, because of increasing returns – he is careless about distinguishing scale and proportions.

Finally, he opposes any reform that would make capitalism more tolerable, and that would delay the apocalypse of his heart's desire (whatever that is – we know what Marx is against, but not what he is for).

E. R. A. Seligman (1895), like Francis Walker and Alfred Marshall, followed the catharsis of a no-holds-barred attack on George by a partial agreement on the desirability of at least some special taxation of land (Andelson and Gaffney 1979).

There are countless other economists who have touched on one or another aspect of the land tax case and then shifted as they aged and changed. I leave to philosophers the case of Herbert Spencer. I do not attempt a comprehensive catalogue, but hasten on to cover the more prominent or currently relevant cases.

Noncommittal, Detached, or Supercilious Economists

David Ricardo, whose contributions to analytical method tower over our subject, does not take an advocate's role. He merely explains in short and simple terms that a tax on rent is not shifted (1817, chap. X). Nothing suggests that he cares if this intelligence is put to use.

That it was put to use by others is some kind of tribute to the power of conceptualization in guiding behavior, a power clearly understood by Clark et al. as they went about undoing Ricardo.

My guess is that Ricardo doubted the adequacy of rent for taxes, because his treatment of other taxes has them all shifted forward, never back into rent. He even rebukes Adam Smith on this point. Believing this, he would not see that most taxes in an open economy come from rent anyway.

Other and more sophisticated aspects of rent were defined by Heinrich von Thünen, founder of location theory; and Martin Faustmann (1849, rpt. 1968) who mastered the mathematics of defining ground rent in forestry when yields are slow and periodic. Both care about economizing on land, but are not known to have written about taxing it.

Location theorists, urban land economists, and regional scientists in large numbers deal constantly with location rents and the importance of pressing landholders to economize on land in the measure indicated by its rent in order to economize on transportation. They are allied with professional city planners, many of whom follow the lead of Ebenezer Howard (1965) in promoting special taxation of situation rents. But the theorists, oddly, have avoided tax policy questions. William Alonso (1964) extends himself beyond the norm of this reference group when he devotes one half of page 116 to note that a tax on land rent is neutral.

Paul Samuelson, in various editions of his text, gives statements as lucid as any heart could desire of land rent as a taxable surplus – and there they rest. We cannot attribute this quiescence to a reticent disposition, or to qualms against melding positive and normative economics. He simply is detached from this issue.

Herbert Simon's article on the incidence of a tax on urban real property (1943) is a fine piece of thread-the-needle reasoning that suggests a general equilibrium approach to tax incidence along lines pioneered by Harry G. Brown, and shows that a tax on "house rental" is separable into a tax on land and building, with different effects. He spikes Edgeworth's incipient fallacy that a given capital adds more to value on a more highly rented site – an approach that could arrogate the land value to the capital value, in the manner of Marx. There are ideas launched about housing as a composite service combining location and building, and it is regarded as a contribution to demand theory. Yet, if it was anything for Simon but an intellectual game, there is no sign. In 1979, however, Simon played a role in a successful campaign to place more of Pittsburgh's graded property tax on land, and less on buildings.

Frederick Babcock's classic *Valuation of Real Estate* covers most of the topics on separating land and building values over building life, on different shaped lots, and so on (1932, see esp. chaps. 23, 30). Babcock does for urban real estate what Faustmann did for forestry: he applies capital theory to separate land and capital values over the long life of durable capital. Richard Hurd (1903) earlier did for urban real estate what von Thünen did for regions; he showed the power of location over land values. Anyone constructing a map of land values relies heavily on Hurd's work because it shows the spatial continuity of urban land values, which is the basis for interpolating and extrapolating. While Hurd attempts no formal theory, it would be hard to fault his penetrating observations of real life on any theoretical ground. Perhaps it is just as well that Babcock and Hurd wrote for the trade, and pronounced nothing on public policy. They illustrate that the needs of economic life demand separate valuations for land and capital, regardless of ideologies.

It is altogether remarkable that Babcock and Homer Hoyt (1933) were writing their classics on land values in Chicago right by Knight's temple. George Olcott was issuing his annual *Blue Book of Chicago Land Values*. Herbert D. Simpson (1933) was studying property taxation and land value cycles, and attributing the banking collapse to the collapse of real estate – a point never entertained by Friedman. Chicago sociologists Park and Burgess (1925) were pioneering their ring hypothesis of land value, and Hoyt (1939) was developing his sector hypothesis. Wallace Atwood was founding the discipline of economic geography, the study of how land determines the location of human culture. They drew on the rich and instructive experience of the vital city around them. However, University of Chicago economists were hewing to Simon Patten's counsel that "economic doctrine must isolate itself more fully"; for them the land market was ruled out of this world. The brilliance of their work in other fields has only compounded the mischief by spreading theories from which land was exorcised.

Friedrich Hayek (1941, pp. 87–94) like other Austrians rejects the classical reason for distinguishing land and capital as backward-looking and based on origin. He insists on maintaining the distinction in Austrian economics for an appropriately forward-looking reason: ". . . capital . . . needs replacement and in consequence leads to investment." He rejects Clark, Cassel, and Knight on the capital fund as "pure mysticism." "The distinction between capital and land is surely not an invention of the economists. . . ."

Yet, having kept the concept pure he lets it languish, and no Austrian has been conspicuous as a land taxer. Nor do they even enter land rent among the carrying costs of durable capital in their treatments of replacement timing, a matter near the heart of their theories.

Positive, but Tentative, Limited, Partial, and Remote

Developing Nations

Haskell Wald (1959) gathers together many arguments for land taxation, although the style is skittish. He anticipates one modern domestic trend in recommending some "personal allowances" in the land tax, to remove the regressive stinger (John Shannon's term) and allow a higher overall rate. He suggests the wisdom of adjusting levies for year-to-year changes in economic rent due to weather and prices. However, after marshalling a persuasive case for a tax that sharpens incentives, distributes wealth more equitably, and is administrable and richly yielding, he suggests that land taxation is a transitional tool that can be phased downwards after developing countries acquire the accounting skills needed for income taxation.

John Due (1963) is much more the observer-analyst than advocate. He finds and records a land tax being implemented in many cities of east Africa. He brings out the importance of land registry, surveys, and clear titles. In West Africa he generally finds that titles are so obscure, boundaries so unspecific, and extended families so complex that a land tax base can hardly be defined, so property taxes concentrate on buildings. In *rural* east Africa, likewise, the cadastral tradition is lacking. He might have added that in precommercial societies community interests in land are expressed in nonpecuniary ways.

In East African *cities,* however, European concepts of tenure have been applied. Land has been commercialized, making land taxation possible — and, he might have added, more appropriate, in order to compensate for extinguishing ancient communal rights.

Due writes glowing reports of the modernity of land-tax cities — Nairobi and Salisbury receive specific praise — and of high standards of administration, among both Africans and Europeans. Due remains the careful technician, mainly discussing nuts and bolts, eschewing ideologies, except when he attributes land taxation in East Africa to "a spread of ideas of the single tax . . . from Great Britain through South and Central Africa and gradually into Kenya." One gathers that the ideas traveled in the natural way, by indigenous grapevine without benefit of A.I.D., World Bank, Ford, U.N., or Colombo Plan, and are the firmer rooted for it.

Due contributes to theory the cultural relativity of land taxation: it fits where land is under tenure. On Crown and unsurveyed lands, he notes, charging for the *use* of land is "the same as a program of land value rates under freehold." The idea is germane in our own commercial culture where so many resources (such as highways and waters) are still without adequate tenure control. Due also echoes Cannan's concern about distorting locational incentives by distributing central city rents. We still see that Colin Clark has a solution to this.

Robert M. Haig (1915a) is both a keen observer and a theoretician. In 1915 he writes, on behalf of the city of New York, "The Exemption of Improvements from Taxation in Canada and the U.S.," mainly discussing western Canada. The title is carefully chosen. Property taxes were so low in that part of Canada, both absolutely and relative to other revenues, that the experience was more with exempting buildings than taxing land, as he points out. His meager raw data on building volumes demonstrate no clear effect on the policy. Cautious and detached though he is, he reasons a priori and from extensive interviews that the policy has a substantial effect in stimulating building and reducing lot sizes. As a political observer, he notes that the policy is pushed by real estate men, in the booster spirit. The region is growth oriented, quite the reverse of Cannan's England. He notes the net effect on land values is positive, and the zeal of the boosters is not utopian, but wealth-maximizing. There is no drying up of loanable funds, as Edgeworth feared. In a few smaller towns, taxes have been high enough utterly to destroy "speculation" (construed as holding vacant land for the rise). Ever circumspect, Haig offers a left-handed conclusion: "Under certain circumstances" improvements can be exempted "without disastrous consequences."

Haig contributes a practical sense of the importance of credit rationing—a factor neglected by most theoreticians. He observes that banks are loathe to lend on raw land, so some owners must build in order to borrow. He conjectures that this may stimulate building, where holders keep land for the "lure of unearned increment," a topic that bemused him. He feels that *present* land taxes hasten building, but *anticipated* taxes dampen the lure of increments. The increment is not the direct cause of stimulus: "It is rather the necessity of preserving title to that increment" (1915b, p. 837). He does not determine whether this is an economically efficient stimulus, or another "tragedy-of-commons" misuse of rent as a stimulus, as modern economists would sense, and Harry G. Brown replied. He likes to define contervailing forces, and to leave us with country lawyer wisdom: "Circumstances alters cases." Like Due, however, he contributes a strong sense of the importance of tenure institutions in determining the effects of land taxation.

Harold Groves contrasts Canadian and American property taxation. Canada has narrowed the base more than we have, partly exempting improvements and nearly wholly exempting personal property, following the British custom. Groves says ". . . exempting improvements . . . strikes a responsive chord in those who, like the author, hold that land is an especially suitable subject for taxation and that little, if any, rational ground can be found for taxing improvements" (1948, p. 29). However, there it rests, since he devotes his main strength to institutional matters.

American, English, and Canadian economic missionaries to LDCs have been legion during the last 35 years of Pax Americana. I cannot possibly name all those who have smiled on land taxation abroad, but a representation includes Richard Bird (1974), William Rhoads (1969), Albert Berry (1972), Erwin Johnson (1970), Richard Musgrave (1969), Daniel Holland (1969), Robert Hardie (1952), Richard Lindholm (1965), Richard Goode (1970), Peter Dorner (1972), John Strasma (1969, 1965), Orville Grimes, Jr. (1977), George Lent (1967), John R. Hicks (1959), Milton Taylor (1965), and Walker Heller (1954). Reform may be easier to comtemplate at a distance, but dreams of far away may come to life. We have seen Marshall shorten the count-down from one-hundred years to "Blast off!" in 1909. Lindholm, for one, has also promoted domestic land taxation. Heller, a student of Groves, has engineered major exemptions of domestic capital from income taxation. John Strasma has skillfully guided a tax on net proceeds of mineral extraction – read "rent" – through the Wisconsin legislature. Others, too, may yet bring their messages home.

Advocates with Unresolved Reservations

J. S. Mill, like the early Marshall, would limit rent taxes to future increments only. The problem turns out not to be so simple, since in a rising market, future increments for all future time are already reflected in land prices paid by "innocent" buyers. He recognizes fleetingly that present land values include discounted future increments, but dances calisthenically around this, concluding it is all right to tax future increments to rent (1872, book V, chap. II). In later passages he returns to the attack without the qualification. The existing land tax is not a tax burden at all, but a reservation of ancient feudal rights. Landowners should bear it silently, *plus* their share of general taxes. He says profits of capital should be taxed at a lower rate than land rent (1872, chap. III; para. 2). The long run supply of capital is elastic because of international flows. (He also anticipates Domar and Musgrave by noting that taxes on profits increase risk-taking.) ". . . among the very few kinds of income which are fit subjects for peculiar taxation, these (urban) ground-rents hold the principal place." A house-tax, so far as it falls on the ground-landlord, "is liable to no valid objection." For Mill the moralist and logician, that is strong language.

In later years, Mill becomes active in the Land Tenure Reform Association, but only after his autobiography is finished and his main energies spent; it is almost a posthumous activity.

Most poignant is Paul Douglas' (1972) comment in his autobiography, concerning what might have been. Looking back, he regrets his failure to support land taxation more vigorously. Knight's Chicago was hardly a hospitable matrix for a young professor so inclined, and anyway Douglas had been trained at Columbia by J. B. Clark and nurtured on Philip Wicksteed. Later as a U.S. Senator he did push the National Commission on Urban Problems to recommend land taxation (1968). He hopes "St. Peter may forgive my silence . . . and accept my later efforts as at least partial atonement" (1972, p. 446). There is no suggestion of how St. Peter should deal with Clark and Wicksteed, who conditioned the young mind against those efforts. To the very end Douglas calls Wicksteed "one of my favorites . . . from whom I had learned the coordination of the laws of production and distribution" (1972, p. 123). One could argue that the Cobb–Douglas production function, which came from Wicksteed (Douglas 1972, p. 46), helps condition even more minds, if not against, then away from those efforts. As used by Wicksteed and Douglas there are just two factors of production, labor and capital. The enclosure movements, in which capital drives labor off the land and which actuated the radicalism of both Marx and George, cannot be fitted to any Cobb–Douglas function.

Advocates for Special Industries or Conditions

There are repeated proposals to exempt specific kinds of capital from taxes. In forestry, Ellis Williams (1974) renews the call for a tax based on site productivity. Fred R. Fairchild (1935) and many others have preceded Williams on this topic. The problem is that there has been no effort to calculate the equivalent rate necessary to compensate others whose capital remains taxable. In effect, these proposals involve preferential treatment for one industry.

Ebenezer Howard (1965) has led generations of planners toward an ideal city financed solely from ground rents. However, Howard's interest in taxes is incidental, and stops at the local level.

Harold Hotelling (1938) is prominent for his marginal-cost pricing proposals. While Marshall and Pigou launched the same balloon in the abstract, Hotelling got right down to the case of regulated utilities, reviving and crediting Jules Dupuit (1844). To meet the deficits of marginal-cost pricing with declining average costs, Marshall and Pigou suggested taxes on increasing-cost industries (with the sideshow of some confusion in defining increasing cost). Hotelling suggests meeting the deficit by taxes on income, inheritance, or land. Land is an even better tax base than increasing cost industries, says Hotelling, because there is some deadweight loss in taxing even them; the vertical supply curve of land, however, means there is *no* deadweight loss at all. As he warms to his subject, Hotelling gives the strong impression that the ideal tax base for meeting deficits is the land benefited by a utility or new bridge, and he therefore forgets the income and inheritance taxes.

He recognizes that it is hard to measure benefits exactly from each project, but urges us to more "communal spending in ways beneficial to the public at large" — perhaps not realizing what a Pandora's box he was opening! At any rate, this could be interpreted to mean that land taxes need not be limited to benefits demonstrably received from specific projects.

Hotelling's seminal article is filled with insights on the nature of rents and costs and congestion. In spite of immediate and recurrent attacks by neo-Leibnitzians[2] such as Frisch and Little, Hotelling launched a whole

2. Leibnitz is the original for Dr. Pangloss in Voltaire's *Candide,* who counsels that reform is futile anywhere because the world is imperfect everywhere else, and all is interconnected. It is hard to distinguish Leibnitz' philosophy from "second-best" theories of welfare economics.

new field of utility economics and forward-looking marginal-cost pricing.

Hotelling also contributes to defining the rent of exhaustible mines. However, here, as with his bridges, Hotelling never makes it crystal clear what all his assumptions and conclusions are, and in the end there are those nagging doubts over how far he is advising us to carry the land tax policy.

William Vickrey carries Hotelling's ideas much further to the logical conclusion of a thoroughgoing general shift to the land value tax base. To Vickrey, urban land rents are a reflection of all the economies of urban scale. Efficiency requires that these land rents "be devoted *primarily* to financing the intramarginal residues" or deficits of marginal-cost pricing (1969, p. 19).

The rent of mines, including oil and gas wells, is a topic of wide interest. Where forest economists have sought taxes on sites only as an incident to preferential exemption of timber capital, other economists have seen mineral rents as a particularly good tax base, with only incidental, if any, mention of exempting capital. This biased treatment could be a reaction to the preferences achieved by mine owners *de facto,* and/or to widespread absentee ownership. Otherwise it is anomalous, because the rent of mines is harder to separate out, and easier to defend as socially functional, than other rents. One can blend mine rents with a return on discovery costs, call it a fund for replacement, and so on. We have seen Herfindahl (1974) taking this tack. Economists leaning the same way include Henry Steele (1967), Paul Bradley (1977), and Stephen McDonald (1963, 1967, 1971). And yet, their differences from others are only those of emphasis, not of analytical technique or concept. All four of them expound and use the concept of resource rent. McDonald has even praised a property tax on oil deposits (1966). It is a fascinating development in economic thought that "rent" has become the universal usage in mineral economics, where it is most vulnerable.

A pioneer analyst of mine rents is Lewis C. Gray (1914), who also draws together and discusses the sparse earlier treatments in Marshall, Ricardo, Böhm-Bawerk, and Sorley. Gray divides mineral rents into two parts, a pure income and a depletion charge, the latter variously referred to by others as "user cost" and "royalty." Gray insists that both are part of rent, which he defines as the surplus above social costs. Depletion, he says, is simply the present value of future rents foregone by present use, and therefore part of rent. He has in mind resources which are replaceable without high discovery costs. He does not fully face up to the problem of long run replacement; or he may simply be taking implicit note of the empirical fact that the bulk of replacement costs consist of payments made to other landowners.

John Ise (1925) joins Gray's inclination to socialize mineral rents, but is more conservation-minded. Ise favors policies to retard the rate of use, a position later reached by Gray as well. Ise is the intellectual idealist, appalled at the vulgar materialism of sovereign consumers, and not at all disturbed at making them learn the character-building discipline of waiting. This message, of course, would be ridiculed by Joe Hill, whose preacher tells the slave, "There'll be pie in the sky in the sweet bye and bye," and by John Keynes: "In the long run we are all dead."

Harold Hotelling (1931) supplies a classic mathematical model of mine rents, one rightly admired by modern modelers for its rigor, but with more than a touch of exclusionary esoteric obscurity. Hotelling tells us we must master the calculus of variations in order to understand depletion. One senses an element of pedantic ostentation, and we are grateful that he was not also vaunting Greek and Sanskrit. The basic reasoning and the findings are in fact much like Gray's.

Warren Roberts (1944, 1967) reinforces the emerging Gray-Hotelling model of resource rents. The presence of rent in mining is implied by sharply rising marginal costs, with average cost therefore well below price. Although Roberts is by trade a political scientist, he favors the economic model of defining rent, and the economic solution of taxing it. ". . . Other means, such as exchange control, tend to confuse issues and lead away from, rather than toward, optimum understanding" (1967, p. 215). "Accounting is not without political meaning. It educates and puts in gear the rationality of men. . . . The practical importance of the concept of rent lies in its near universal validity and in the ability of intellectuals to give it proximate definition." (1967, pp. 207–8.)

Mason Gaffney (1967) writes favorably of taxing mine rents, but not in a discriminatory way. To him, land rents of all kinds are the tax base of choice. As to mineral rents he treads more cautiously than Gray, seeing a need to reward and finance replacement, in principle. Yet, in pursuing this principle he finds such a weight of institutional bias favoring excessive and premature discovery that he sees little need for current concern about adequacy of motivation. He seeks to devise a tax scheme which would motivate exploration optimally while raising revenues as well. He sees much potential rent dissipated in interest on premature effort and emphasizes the benefits of an industry operating with leaner advance reserves. Gaffney also sees rent taxation as a reform of extended economic and social consequences, with benefits to equity, competitive structure of industry, employment, efficiency, and social harmony.

Absentee ownership of minerals gives a fillip to our subject where intellectuals find themselves in colonial settings. Canadian economists have responded in force. Lewis C. Gray originated as a Canadian. Anthony Scott (1976) assembles a number of them in his *Natural Resource Revenues: A Test of Federalism*. Contributors include Thomas J. Courchene, W. D. Gainer, John Helliwell, J. Clark Leith, Milton Moore, T. L. Powrie, Donald Smiley, and Irene Spry. Milton Moore writes, "I shall take as my first principle that economic rents belong to the community" (1976, p. 241). Only Paul Bradley, an American by origin, shows major doubts. But it is characteristic of this Canadian group that they focus solely on the rent of mines. There is no hint of extending the taxation of rents to the commercial land of Toronto, the political land of Ottawa, the docks of Montreal, or the fields of Manitoba.

Another Canadian writing on mineral rents is Meyer Bucovetsky of Toronto (1972). Later, he joins with Malcolm Gillis of Harvard (1978). Their locations may demand more circumspection than the colonial spokesmen's. They by no means dispute the case for taxing mineral rents, but look at it mainly from the taxpayer's viewpoint.

Economists are also giving great attention to collecting mineral rents from lessees on public lands. Few challenge the old practice of giving away water rights free, and hardly any have taken up Delworth Gardner's (1962) evidence of a need for higher grazing fees. But economic writers and policy makers are vigorously pursuing the mineral rents. Even the "conservatives" in this field, such as Mead (1977), Sorenson (Mead and Sorenson 1980), McDonald (1979), and Kenneth Dam (1965), do not dispute the meaning of resource rent, or the public right to receive it. On the contrary, they proclaim it. They simply prefer leases to be written with low royalties, no intermeddling, and a high emphasis on the front-end bonus as the bid variable and allocating device. Others prefer leases with more deferred payments, and "participation." These include Ross Garnaut and Anthony Clunies-Ross (1977), Michael Crommelin (1977), Mason Gaffney (1977a, 1977b), Gregg Erickson (1977), Arlon Tussing (1977), and Robert Kalter and Wallace Tyner (1975).

The subject of rent pervades and transcends all of economic life and policy, inescapably. ("They reckon ill who leave me out; when me they fly, I am the wings.") Hundreds of economists recognize rent when capitalized into the value of taxi medallions and liquor licenses, of all things. It is a strange quirk that so many economists recognize and condemn these as petty while resting so taciturn on the gross ones.

The rent of water manifests another anomaly. Hardly anyone has responded to Gaffney's call (1969a, 1973b) for public charges on reserving and withdrawing water, but legions have joined Allen Kneese's (1962) effort to promote effluent charges for polluting water and air. But neither movement has made much headway compared to community collection of the rent of mines.

There is an active literature on collecting rent from the radio spectrum, a valuable resource now allocated without any price going to the owners, viz. the public (Levin, 1971). As with all these "exotic" resources, there quickly emerge three camps. The first wants to collect rent publicly. The second dismisses distributive equity and focuses on firming up existing tenure rights. The social goal of this is to allow commercialization and easy transfer, leading to efficient allocation. The third camp is solely concerned with asserting the public right, regardless of efficiency. The beauty of taxing rent, of course, is to achieve and harmonize the (professed) goals of the second and third camps. It would have prevailed long since, were the second and third camps more aware and respectful of the validity and sustained power of each others' half-share of truth.

Mainly Positive

Several economists have dedicated major efforts to promoting land taxation. I pass over the most dedicated advocates, Henry George and Harry G. Brown, because their positions are so well known, so total, and so easily referenced. Beyond these, it is often thought there is only an eccentric band of true believers. These eccentrics include, however, Léon Walras, John R. Commons, Colin Clark, Dick Netzer, William Vickrey, Lowell Harriss, Ralph Turvey, François Quesnay and the physiocrats, John Zangerle and a large group of assessors, Knut Wicksell, and Adam Smith.

The appearance of Léon Walras (1896) here may be a surprise to those who know him through Jaffe's translation of selections that emphasize abstruse techniques. Walras is a thoroughgoing land taxer, who writes with the passion of a Gallic Henry George. A few passages give the flavor.

" . . . In order that the total of personal faculties and their products should belong to the individual, the State must own the land and find in its rent the means to subsist and the source of capital it needs. The assignment of land to the State solves the question of taxation by erasing it" (1896, book II, section 8).

"Lands do not belong to all the men of one generation; they belong to humanity, that is, to all generations of men" (1896, book II, section 6). (Rawlsians take note.)

"In relieving the feudal aristocracy of its public duties, we neglected to take back the soil, the enjoyment of which constituted the compensation for these duties" (1896, book II, section 6).

Walras regards himself as the carrier of the truths of Quesnay and Turgot, "and for this to have been excommunicated from the science by those who have led it to the point of sinking and discredit where it finds itself today" (1896, book II, section 9). He assails Bastiat, leader of the "Chicago School" of France. "One reaches the top by persuading himself that lands which sell at 2000 francs the square meter have no value" (1896, book III, section 36). Henry George never impugned the motives of courtier economists more bitterly than Walras.

Walras devotes great care to a detailed plan of transition to land taxation, beginning from earlier compensation proposals of James Mill and Hermann-Henri Gossen. Mill would compensate present holders at a price capitalized from current income (similar to modern "use-value" assessments), taking development and speculative value for the State. Gossen would compensate at a higher price discounted from future higher rents, relying on the State's superior credit and lower capitalization rate to let the State amortize the debt from future rents, and eventually own it clear.

Walras rejects Gossen's rationale, finding his mathematics imprecise, and observing (with Adam Smith) that the State's discount rate must be higher than that of its creditors – who also can buy land. From here he becomes a bit vague, suggesting that when political economy has been rescued from its venal traducers, the State could carry out such a project and make it pay as successively higher industrial stages raise rents, aided by a State that guides social organization better, advised by honest and right-thinking economists. (Wicksteed expresses the same hope, from the other side!)

Walras also treats the practical problem of separating land from capital (1896, book IV). He refutes the idea that farmland is so fused with fertilizers and "buried" improvements that land and capital are indistinguishable – he treats the capital as a revolving fund, recovered in crop sales. He scores economists who "declare insoluble all questions which strike them as difficult." Walras is fun to read. "God, according to them, in creating man said to him, 'You will discover the compass, the railroad, the electric telegraph, constitutional government, but you will never discover a satisfactory tax.' Strange malediction!" For Walras the land tax is not a tax but co-ownership of land by the State, and the perfect source of public revenue.

John R. Commons (1922, 1934) is another devoted land taxer, more politically involved than most. The 1921 Grimstad Bill in Wisconsin embodies his proposals. Commons urges us to modify "ability to pay" as a canon of taxation. Social utility is also important; taxes are part of the police power. Even if not so intended, "taxes nevertheless regulate, . . .

they say to the businessman: Here is profit; there is loss." So taxes should vary *directly* with ability to pay, but *inversely* with service and contributions to the common wealth. Landowners as such only take from the common wealth without returning anything. Land and its rent income should therefore pay at the highest rate.

"Institutional doctrines" are utilitarian, looking to the future, disregarding the "dogma of natural rights." Institutionalism says we should give "inducements to individuals to acquire wealth by increasing the commonwealth." It sounds as though Commons is arguing in favor of incentives and against excess burden, but he has his own way of putting things.

Like Walras, Commons is absorbed in the question of soil conservation, and equally involved in the institutional problem of winning farm votes. He proposes a rough-and-ready 50 percent exclusion of farm land values from the tax base, to allow for capital mixed with the soil – a proposal that overlooks entirely the differences among soils, which is the basis of Ricardo. This was really a political strategem. It mollified "the farmers," he claims – but the Grimstad Bill fails.

Commons writes with especial favor of "the American invention of Special Assessments"; Marshall much earlier wrote of their use in England, but Commons traces them to 1830 in New York. Unlike Hotelling, Commons likes the idea of limiting the assessment to the cost of the public works, and limiting public works to those thus financeable. But even more he prefers the limitation of these assessments to land values. He likes the common sense of early courts in seeing that public works enhance only land values, not capital values. The legal distinction between taxes and assessments has a renewed life in post-Proposition 13 California. Many lawyers believe that "assessments" for benefits to land fall outside the 1 percent limitations of Proposition 13; some one-fourth of all property revenues in California are from assessments of special districts (Zion 1979).

Commons likes rules of reason rather than absolutes: "There is a diminishing validity of truth." "A single truth, like a single tax, ends in its own destruction." So he proposes to blend the two canons of taxing the ability to pay and untaxing the service to the community by a three-tier income tax rate: a low rate on wages, a medium rate on capital, and a highest rate on land income.

Unlike most Georgians, Commons sees the Federal income tax as one tool for socializing rent. He would dispute Paul Douglas, who kept silent on land taxation as a senator because "the issue involved local and state governments, rather than national" (Douglas 1972, p. 446) and who lumped accelerated depreciation together with the depletion allowance and capital gains under the titles of "abuses" and the "citadel of privilege" (1972, p. 452). Commons notes the L. H. Parker Committee (1931) is proposing higher rates on unearned income, but failing to distinguish land and capital. Commons proposes favoring capital by accelerated depreciation. That wish has come true, but not the rest of the package. He would not like today's confiscatory rates on ordinary wage income, nor 60% exclusion for unearned increments.

Commons ends by refuting Willford King's (1921) attempt to fuse land and capital. It is the same issue we have met several times. King wrote from the individual view, and failed to see that "if our canon . . . be . . . that of the economic effects of speculation on the wealth of the nation," then land income has no social function. Creating capital adds to the common wealth. Acquiring land is merely a zero-sum game, as we would say today, and worse than that if speculation and credit rationing interfere with economic allocation, as George alleged.

Many assessors have become land taxers, or vice versa. We have already cited John Zangerle. Some others are Moody of San Diego, A. A. Pastoriza of Houston, Lawson Purdy of New York (1929), Percy Williams of Pittsburgh, W. W. Pollock (1926), William A. Somers of St. Paul, John Rackham of Washington, D.C., John McCutcheon of Johannesburg, J. F. N. Murray of Australia (1969), Ted Gwartney of British Columbia, and Hector Wilks and P. H. Clarke of England. Purdy, Pollock, Somers (1901), and Murray in particular wrote extensively on techniques of separate land valuation, fully understanding the necessity for demonstrating the practicability of this art.

François Quesnay (ca. 1760, rpt. 1963), the founding physiocrat, royal physician to Louis XVI, and precursor of input-output analysis (the *Tableau Économique*) was of course a land taxer (possibly to save his patient's health?). He defines the *produit net* or rent of farm land as that which the state may tax without damage. In his zeal to discourage the taxation of capital, he doesn't even allow that it receives net income, but only a recovery of principal, so any taxation will diminish the stock, and thus also reduce *produit net*. This is a primitive apprehension of excess burden. It is hard to be sure if Quesnay actually believes that capital has no income, and that only agriculture is productive; he may be overstating his case in a desperate effort to penetrate the slow wits who mismanaged France. His follower Pierre Samuel du Pont de Nemours, who later fled the Terror and helped his son Éleuthère Irénée found the powder mill in Delaware, believed the main idea was to keep the State from taxing capital. Perhaps that was du Pont's main interest. In any case, Quesnay and Victor de Mirabeau framed a reasonable definition of land rent, and a rationale for taxing it. Some others of the school were Mercier de la Rivière and N. Baudeau. Its political spokesman was Baron A. R. J. Turgot.

Knut Wicksell's (1896) case for taxing land resembles Hotelling's, only Wicksell begins more timidly and ends more boldly. He begins with the narrowest of benefit theories of taxation, the purpose being to put an upper limit on spending. All public spending should have a positive benefit/cost ratio at the margin; the proof of this is to be unanimous consent of those taxed (at least the theoretical possibility of unanimous consent) or nearly unanimous consent. Evidently, Wicksell is not thinking here of purely transfer taxation, but of public works and services.

He deplores the use of hidden taxes, which yield such ample revenue that States spend it wastefully, without needing to ask how to fund each project.

Then he turns moderate. His principle will let legislatures pass proposals that might otherwise fail because non-benefiting citizens will not be taxed, and so not oppose them. It sounds like "Public Choice"— and was indeed translated by J. M. Buchanan (Wicksell 1896).

But next he seems like Hotelling. The simple pricing or fee principle will not do for public works, because marginal cost is far below average cost. He is much more specific than Hotelling, though, about how to meet deficits. The specific *beneficiaries* can pay, in fixed fees.

Finally, he arrives at Henry George's ideas. Everyone knows you never get unanimous consent from landholders to pay for public works—but Wicksell's unanimity rule applies only to those who hold their wealth justly. Landholders are to have no veto. "I agree . . . wholeheartedly with the special taxation, or better confiscation . . . of . . . the increase in land value. . . ." Private rights to land are ". . . in open contradiction with modern concepts of law and equity . . . society has both the right and the duty to revise the existing property structure" (Wicksell 1896, p. 7). So we have the benefit principle construed as a tax on land values, but with no suggestion that *this* tax be limited to benefits. There is a suggestion, but not much more, that it be limited to future increases. "The tax should be increased in steps to the point where the unearned windfall profits are in principle absorbed . . ."

The tax should be levied currently—the Haig-Simons principle—and not as a transfer tax, which would "hinder the flow of commerce." It should be levied not just on urban land or farmland, but all land.

Last, Wicksell declares that private land rights be narrowly limited to those qualities of land contemplated by the original grantors; and future resources discovered or made valuable, such as mineral rights, should be reserved to the Crown. Think of all the natural goods that were "free" in 1896, and even 1933, and precious today.

Ralph Turvey's (1957) analysis is characteristically terse, tight, and practical. He never actually says he favors land taxation, but only that the claims of the advocates are "in general correct." He shows no interest in even bringing up the various doubts we have noted in other writers. He writes in the English context where rates fall on occupiers, not title holders, but he has no difficulty distinguishing impact from incidence. He emphasizes the stimulus to urban renewal and to improved quality of building, using simple diminishing returns concepts and marginal equation of costs and receipts. Ever practical, he discusses liquidity effects. He notes the removal of excess burden and the resulting increase of taxable surplus. This is physiocracy renewed, only this time for a nation of shopkeepers in the cities. His only reservation is a faint doubt about taxing ripening land on its capital value – the Ely idea – but he does not pursue this.

Lowell Harriss (1968) also emphasizes the excess burden of taxing buildings. However, where Turvey posits diminishing returns as we add capital to land, Harriss, like Walter Morton, emphasizes decreasing unit costs per square foot as buildings get larger (he does not say what this does to lot size). Of course, this would redouble the excess burden of taxing buildings. Like Marx however, he may have failed to distinguish variable scale from variable proportions.

Harriss meets part of Cannan's argument for taxing buildings by noting that public costs are not in proportion to building values when we compare old and new ones. Costs are, if anything, inversely proportional to values. As for the distortion of locational incentives that disturbed Cannan, Harriss writes that taxing buildings leads industries to cluster in low-tax enclaves. The result is a centrifugal bias, a major cause of sprawl in American metropoles, and a self-reinforcing process that keeps getting worse.

Harriss deplores the property tax on utility capital, using a muted Hotelling-Wicksell rationale, and ends by suggesting the replacement of all capital taxes with land taxes.

Colin Clark (1965) repeats the now familiar idea about lack of excess burden of the land tax, in contrast to other taxes. Then he launches a simple and original scheme for preventing the distortion of locational incentives caused by local taxation: " . . . land values per head of population should first be ascertained; then the state would impose a land tax which exempted altogether those local authority areas where per-head land values were low, and which rose in a progressive scale for those with higher land values per head. Each local authority would then also impose its own tax . . . ." Gaffney (1973a, p. 33) has also written in a similar vein, and it seems sure that local exclusionary zoning will slowly strangle us if we fail to move along such lines.

Dick Netzer (1966) systematically disposes of the various cases against land taxation surveyed in our "Mainly Negative" section above, save for some residual doubts about adequacy of base; these doubts subsequently have been dropped. Netzer meets the Cannan argument by proposing to supplement the land tax, not with a building tax but with a "family of user charges" geared to marginal congestion costs, in the style of William Vickrey. He recognizes that this does not address the larger question of how to handle Marshall's "onerous" taxes, for "services to people" – that is, transfers.

Conclusion

We end where so much economics begins, with Adam Smith (1776, rpt. 1937). Smith likes land as a revenue base first because it is stable and permanent. Few great nations or sovereigns, looking back, have subsisted without it – many by direct ownership of crown lands. Smith thinks that sovereigns do a dreadful job when they try to manage land directly; he advises them to sell it and tax it.

Smith accuses the physiocrats (rightly or wrongly) of favoring a land tax that varies as a function of realized rather than potential rent. He points to the excess burden of such a tax, and the lack of burden in the fixed English land tax. Yet the English tax is out of date, so Smith proposes a regular reassessment of the rental value, exempting improvements. Before a landlord's improvement, Smith would assess his land and "rate him at this valuation for such a number of years as might be fully sufficient for his complete indemnification." Data for updating values are to come from a public register of lease terms, a Venetian practice. A "general survey and valuation" is also possible, but Smith thinks this to be painful; he prefers the Venetian method.

Smith, like Ricardo, opposes "Tithes," or any tax on gross output. But unlike Ricardo, he sees such taxes shifted to landowners, along with their excess burden (Ricardo saw them shifted forward). Smith does not need Marshall to teach him about supply and demand; he uses it as a tool.

Smith believes housing to be a superior good and is not dead set against a tax on house rents. However, he says, "Ground rents are a still more proper subject of taxation than the rents of houses." There is no shifting, no decline of supply. The owner is always a "monopolist" who charges what he can. (It is interesting how often critics like Stigler deride George for this classical usage, as though it were peculiarly his.)

Place a tax on rent, and "no discouragement will thereby be given to any sort of industry. The annual produce . . . of the society . . . might be the same after such a tax as before. . . . Nothing can be more reasonable than that a fund which owes its existence to the good government of the state, should be taxed peculiarly . . ." (p. 796).

If you tax stock (capital), on the other hand, it will be concealed or removed. Worse, some forms of capital are more concealable than others, so a tax is necessarily nonuniform. Knowing the quantity of capital requires a deep inquisition "as no people could support" (p. 800). How he would boggle at the inquisitions "supported" today – but capital is never uniformly taxed. Place a tax on stock, and "not only the profits of stock, but the rent of land and the wages of labor, would necessarily be diminished by its removal" (p. 800). The last thought epitomizes a fair share of both Georgian and Keynesian economics. May economics progress faster in the next two hundred years than in the last, or at least stop retrogressing from the necessary and sufficient wisdom of the great Adam Smith.

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