



The Philosophy of Public Finance (excerpt from: *The Losses of Nations*)

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This article was first published in *The Losses of Nations*, a publication from Othila Press Ltd. The Robert Schalkenbach Foundation has received approval from Othila Press Ltd. to republish this article at no cost for educational purposes.

Article citation:

Gaffney, Mason. "The Philosophy of Public Finance." *The Losses of Nations*, edited by Fred Harrison, London, Othila Press Ltd., 1998, pp. 175–205.

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Chapter 7

The Philosophy of Public Finance

Mason Gaffney

1. Organic Theory of the State

THE TREATMENT of rent as public revenue is part and parcel of an organic theory of the State.

In the contractual theory, government is a kind of business which extends services to landowners. They only need pay for benefits received, which are construed in the narrowest possible terms.

In the organic theory, landowners hold title to land as a privilege. In return, they owe the State - acting on behalf of the community - certain obligations. The entire value of land is regarded as a benefit received from government. This is in keeping with the definition of land as "Public Value" offered by Alfred Marshall, the distinguished Victorian economist.

Land and its value is the joint product of at least three things:

- nature, which created it;
- government, which acquired it from other sovereigns and protects it from other powers and extends public works for the public's benefit; and
- synergism, which is the increment to value that spills over from social and economic activity in the neighborhood of each parcel of land.

Value stemming from all these elements is regarded as unearned by the individual landowner. It is the product of outside forces and therefore a fit object of taxation.

Along with this goes a Puritan ethic or productivity theory of distribution. Private receipt of land income is regarded as non-functional, since no incentive is required to create land. Incentive is only required to turn land to its highest use. A tax on land that is based only on capacity to serve, and does not vary with use, has the property of socializing rent while sharpening the incentive to turn land to the highest use permitted under the law.

Critics of site value taxation sometimes argue that socialization of rent would impair the allocative incentive. This is seldom heard today. Now the criticism is more likely to be the opposite. Land taxes are disliked precisely because they do force land into its highest use as defined by the market. One may not agree with the values of these critics, but their analysis of cause-and-effect is accurate.

The philosophy of site value taxation distinguishes sharply the land from the landowner. It says that taxes on land value are paid out of income which the land earns. They are not paid by the owner as a person unless we regard him as having a prior right to own the land free of any liability for taxes. But if no such right was part of the original land grant, then it is the land that pays the tax rather than the person who holds title. *No sovereign that I know of has ever alienated land without reserving the right to tax it, condemn it, police it, and so on.*

A legal counterpart of this philosophical position is that land taxes are *in rem*, that is, they are levied on a thing, the land, rather than the person who owns it. In case of nonpayment, it is the thing, the *rem* that is forfeited and not the *corpus personae*, as with the income tax. Again, tax liability is based on characteristics of the thing, regardless of the personal circumstances of the owner. In the eyes of many people, this is a shortcoming of site value taxation (and all property taxation). In the philosophy of site value taxation, this is not a drawback but an advantage.

Another philosophical rationale for a site value tax is stewardship. The idea is that land titles stem from the Crown which represents all citizens. Titles were transferred to private hands to facilitate the use of land for the benefit of everyone. Those not holding land were excluded from a sort of charmed circle. New generations and young people coming along are always excluded unless they inherit land, and modern medicine makes that a long wait. Taxes on land value are viewed as a counterpoise to this exclusion, in three ways.

- (1) Money is raised for public purposes.
- (2) The owner is pressed to use his land in such a way as to render service to others.
- (3) The owner has to hire labour.

It is consistent with this philosophy that lands which are open to public access are exempt from property taxes. Open access is accurately perceived as negating the need for compensation because there is no exclusion. It would be compatible with site value tax philosophy to exempt "open space" from the property tax provided the open space was not

fenced and was truly open for use. The philosophy is, however, incompatible with passive fencing, that is, exclusion of people.

Consistent with this concept, site value tax philosophy enables us to exempt public right-of-way and even utility rights-of-way, in certain circumstances: provided they carried the obligation to serve everyone on a common carrier basis; provided they were sized somewhat ahead of demand, so that marginal costs fell below average costs; provided they were regulated so that rates might not exceed marginal costs; and provided the rights-of-way were not excessive. As to owner-occupied residences and their curtilages, nothing is so private and exclusive as they are, so there is little reason to exempt them, possibly except for a minimum pied-a-terre. Lands used for commerce and to some extent industry are "open to the public" in significant ways that private residential lands are not. The philosophy of assessing residential use at lower rates than business and commercial use is a movement away from site value taxation. The idea that "commercial" is a dirty word is alien to the site value tax philosophy.

The idea that "ability to pay" should be the sole criterion of taxation is alien to the site tax philosophy. An individual owning land is obviously better able to pay taxes than the same individual without the land, true. But people may be able to pay because of earned as well as unearned income, and site value tax philosophy would clearly consider unearned income to be the more eminently taxable. The fact that unearned income is more highly concentrated than earned would be important to many.

"Ability-to-pay" in practice often stresses short-run liquidity more than long-run wealth or permanent income. Many people find this attractive in payroll taxation and sales taxation, for example. Site value tax philosophy, on the other hand, is more inclined to make a virtue out of taxation to put a cash-flow bind on owners of under-utilized land. It would deplore an emphasis on liquidity: the percentage of people's assets held in cash and near-cash declines with their total wealth.

But the core idea is to preserve incentives. The philosophy is a logical extension of the productivity theory of distribution where people are to be rewarded according to their contribution to the joint products of the economy. Work should not be discouraged by taxes which dilute the rewards of effort.

Finally, there is the function which I shall call "social auditing." The landholder is regarded as a trustee, presiding over resources in which the community has a paramount sovereign interest. Each year a payment is assessed against him based on the capacity of the land to serve society.

The demand for this payment is a kind of social audit, a way of asking the Biblical question: "What have you done with the talents with which we have entrusted you?"

2. The Citizen's Obligations

THE RIGHTS that citizens claim are matched by corresponding obligations. Much of political philosophy is about how to establish the character of these rights and obligations, and how to balance them in a practical way.

Rent is the cement that binds these together, when that income is paid by the individual to the community that articulates and protects the rights.

How the state and the citizen meet their obligations reveals a great deal about governance; and about the collective attitudes of citizenry.

Site value taxes are sometimes identified with the idea of socializing land rent or unearned increments, but several other taxes already do that: examples include taxes on corporate profits, the mining tax and income tax applied to land income. All of these are based, at least in part, on the value of unproduced land, and they do not lower its supply. However, they differ from the site value tax in an important way: they depend on the owners taking action, and realizing something from a cash sale. They are taxes that "shoot anything that moves." One consequence is that they help to keep land from its best use.

The difference in incentives to the taxpayer is sharp. The site value tax adds nothing to the variable costs of developing or using land. The result is that the landowner will develop the "intensive margin" of his land more fully. In respect to mineral deposits, for example, we often hear that the imposition of a royalty, based on gross production, causes "high grading". That is, the royalty adds to the marginal cost of extracting low quality ore and so it raises the cut-off grade. A site value tax applied to mines, on the other hand, would be based on the value of reserves that are in place, and levied at a constant annual rate regardless of the amount of ore extracted in a given year. It would not raise the cut-off grade.

The exemption of urban buildings from the property tax likewise lowers the cut-off grade. It results in owners adding marginal increments of size and quality which would have been submarginal if they were taxed.

Aside from the tax on new buildings, which ought to be abated, most taxes other than the site value tax are synchronized with the taxpayer's liquidity. The site value tax is not so designed, either in philosophy or application. It is in vain to criticize it because it is inconvenient for some landowners to raise the cash to pay it. It is not supposed to convenience

such landowners; and the inconvenience it causes does not suppress useful activity; quite the reverse. Its philosophy is that the landowner owes society something for the privilege of holding a piece of the limited surface of this small planet, and an annual required cash payment is calculated to inconvenience him into using his land so as to render service to others and offer employment to others, many of whom may not own land. One may subscribe to that philosophy or not, but that is the issue rather than the issue of convenience to the taxpayer.

Untaxing improvements and untaxing activity on land encourages higher uses; taxing land as a positive step adds pressure to utilize land. It is more than permissive. It is not absolutely mandatory, but it does apply steady pressure. The combination undoubtedly pushes or pulls, as you will, land into higher uses.

Site value taxation is oriented towards encouraging and goading landowners to use land more economically. It implies the inclusion of a "succession premium" in the tax base. The succession premium has two elements: a current latent capacity to serve in a higher use than the present one; and an unripe capacity expected in the future. I will refer to the capacity-to-serve premium as the "ripe premium" and the succession premium as the "green premium" to underscore this distinction.

The succession of land from a lower to a higher use could and should take place in an orderly, peaceful fashion, but it rarely does. Zones of transition ("ecotones") become "combat zones". Land value in these zones develops a green premium in anticipation of conversion. It is sometimes referred to as "speculative". That is misleading, for "speculative" suggests that conversion to higher use is uncertain when, in fact, it may be more certain than a repeat of the present use. It is rather, simply, a green premium because the time is not yet ripe to change the use.

Including the succession premium in the tax base is often criticized on the grounds that it is inequitable; inconvenient; and finally inefficient because it forces premature conversion to the higher succeeding use. Let us consider these points in order, beginning with a review of how land is transacted under the current fiscal regime.

Outside Britain, the capital value of land is almost always used as the tax base, for several reasons:

- The market evidence for assessment is more available because land normally trades that way. A capitalized value is paid for the transfer of fee simple title. Ground rents are paid here and there, in large cities particularly, but are much scarcer than deed recordings and

are likely to be long term contracts which do not give accurate information about current values.

- Land prices, as they trade, are based on highest potential use of land, while existing rents are based, in part, on current uses that may be less than the best use.
- Rents often are multi-partite, consisting of a fixed annual amount plus a fraction of sales plus a bonus or “key money” that is paid up front. Capitalized values in the market are usually easier to compress into a unitized figure.
- Residential and recreational properties which yield no cash flow to the owners still have fee simple values which are the capitalization of imputed service flow. This fact serves to head off the fallacy that residential and recreational land yield no “income,” or just yield values too ethereal to be weighed in the balance with something as prosaic as money. The cash value of deeds to residential property is one of the more accurate economic measures we have. Every man may not have his price but every land parcel does, especially if it is liable for annual taxes that increase with the price demanded.

Now, capitalized value adds to the tax base the premium value caused by anticipation of future use. As the poet Thomas Campbell (1777-1844) wrote in *Lochiel's Warning*: “Coming events cast their shadows before them.” These shadows develop a present value that is bought and sold today. The premium goes by a confusing variety of names like floating value, speculative value, urban shadow value, development value, and so on. I will call it “succession premium.” Whether and how to include succession premium in the tax base is a controversial topic in taxation, whether under a site value system or the present general property tax system. It warrants close attention.

The equitable argument for including succession premia runs as follows. The premium is the discounted present value of future income and as such tends to increase yearly along a compound interest curve, growing like money in the bank. This annual increment in value is income. According to Canada's Carter Commission, which was in the tradition of Professors Haig and Simons, unrealized accruals of value are and should be treated as current income. The annual accrual of value is, in a perfect market, proportional to the value. So is the property tax.

Therefore the property tax is proportional to the income. Thus a tax on the green value is a way, probably the only practical way, of taxing that income at the appropriate time, which is when it accrues.

It is indeed the only sure way of taxing it at all. If we look at an alternative

like the Ontario speculation tax, it is levied only at the time of sale. That means that a person wanting land in the future could buy it today, hang on for 30 years, and finally realize its unearned increment by use, never becoming liable for the tax.

Residential land is not taxed in any other way. A person whose residence succeeds to higher use is uniquely favored by income tax law. His capital gain is mostly or entirely tax-free, now and forever. This unpre-empted tax base lies waiting to be tapped.

Turning to inconvenience, it is undoubtedly inconvenient for land-owners to pay taxes on succession premia. The argument for inconvenience cited in respect to ripe premia holds no water in respect to green premia, but rather the contrary. We do not want a policy that inconveniences landowners into converting land to succeeding uses prematurely.

It is not likely that assessing and taxing succession premia would indeed have this effect. If a landowner were prematurely to convert land to a higher use, one of two things would happen, both bad. One, the might lose money for the first several years since the market is not yet there for the premature improvement, or two, the owner may, in order to avoid the first problem, inadequately develop to meet future demand. In this second case the land will soon move into a future where land taxes are based on a higher use than it is improved to meet. This is assuming that the assessor continues to increase the assessed value each year, as the capability of the land increases with time, as we are proposing.

The only circumstance I can imagine in which assessment and taxation of a succession premium would cause premature conversion would be if the taxpayer anticipated, correctly or not, that the assessor was going to freeze the land assessment at the low level corresponding to the premature under-improvement. It is the valuer's job and every official's job to broadcast the fact that such freezing will not occur.

As a general rule, the anticipation of future taxes during the ripening period and thereafter will be capitalized into lower present values. Beginning from this lower base, the growth path of the green value is steeper, up to its value at time of conversion to the future use. The growth path is steeper because the value will grow at a rate equal to the interest rate plus the land tax rate. Thus the growth in value is at a rate high enough to pay both interest and land taxes, without changing the optimal time of conversion. This capitalization effect takes away a substantial part of the premium which is the tax base. In addition to being the tax base this premium is the market value on which interest is computed (either cash or imputed interest). Reducing this premium value therefore reduces both the temptation of

individuals to sell prematurely to developers, and that part of carrying cost which is interest.

THERE IS A tendency for people to attribute their actions to taxes in order to divert responsibility onto the shoulders of the tax authorities. This may be why we hear that land is being developed prematurely “because of taxes”.

As to efficiency, we have discussed this in part in connection with inconvenience, but there is more to it. Site value taxation, we have seen, has a developmental tendency. It strengthens the higher use *vis-à-vis* the lower use at every margin of decision, be it the extensive or the intensive margin; be it at the fringe of cities or on under-developed land that permeates the cores of every city. From observation, it is my judgment that under present circumstances the major effect of site value taxation would be to encourage infilling and redevelopment of older central cities. *There is so much land there on the verge of renewal which would be pushed over the margin by the exemption of new buildings from the property tax and the application of fiscal inconvenience to landowners.* In addition, there would be an enormous synergistic effect from the replacement of older buildings by new.

Frequent reassessment is of the essence. In the normal course of events buildings and other capital depreciate with time in contrast with land, which often appreciates. Any movement in the direction of more frequent reassessment, therefore, is a move towards site value taxation and *vice versa*.

There is a tendency in many jurisdictions to treat the issue of a building permit as either a taxable event or an assessable event. New buildings, in an inflationary period, thus come on the rolls at inflationary price levels. If land is not reassessed annually, it quickly becomes seriously under-assessed relative to new buildings. As to old buildings, practice varies. In some jurisdictions they are “factored” upwards from time to time to keep pace with inflation of replacement cost. Since land has no replacement cost, this kind of factoring may omit land.

If land is not reassessed frequently then the assessable event in the life of land is likely to be subdivision or other improvement, and what is called a land tax becomes a sort of increment to the tax on new buildings. Under site value taxation the assessed value of raw land would increase annually with its market value so that actual subdivision would occasion no great jump, if any, in assessed values.

3. Rent: the fiscal base

SOCIAL POLICY is generally best served by defining rent as the highest latent opportunity cost of land. Ideally, this rent would be charged against all land uses so as to eliminate all marginal extensions of land holding, in space or time, whose marginal service flow fell short of the marginal social cost.

There is a lingering tradition of regarding rent as a "residual." This makes of rent a waste basket for the mistakes of managers and the slothfulness of heirs. Landowners dealing with lessees are more importunate: rent is due periodically with the passage of time, regardless of land use. Owner occupants leasing land from themselves need to apply the same principle. If an owner fails to profit from good land, it is not the land's fault. For social as for private accounting, land should be imputed the highest available latent opportunity cost. Like the lawyer, its time is its stock in trade. Land-time is worthy of its hire that is rent. Land as such is passive and irresponsible. It yields its service flow by being available. It is always an input to its owner's economy, regardless of output. Actual use is a function of possession and management.

Neither should land be regarded as a risk-bearing agent. Land is a flow resource, not a fund of circulating capital which can be depleted to meet losses. Land is best regarded as a hired factor, like daily labor, to which the capitalist employer advances "subsistence". The owner demands regular payment, in advance of product completion and consumption. Knut Wicksell (1901; 1893) nailed down this point. Landowners who lease land to building owners on long terms for level annual payments - the most common arrangement - confirm the point.

The reason that common parlance and perception often confuse the landowner function with the capitalist function is that the functions are usually joined in the same person. Imputation of rent requires a functional analysis, however. Functionally, the owner of capital hires land and advances rent. Capital then carries the product over time, absorbing risk for better or worse. It is capital that is embodied in a product irreversibly, losing any scrap value commensurate with its previous value, while land retains a scrap value in general equal to its previous value. It is capital whose return is meaningfully "residual."

These definitional details assume great importance when we ask how best to tax "rent," and what effects to expect. They assume great importance when we ask how much of urban property income is "rent." If the above definitional detail be used, the estimates of urban rent and land value made by Goldsmith (1955: 12; 1962: 186, 234, 238) and Kurnow (1959: 834), often cited and relied upon, are meaningless. The allocation

between land and buildings made by most tax assessors is meaningless. *If rent is the latent opportunity cost of land, then most current operating income from property in older central cities is rent.*

Land income is much greater than the current cash flow, for the following reasons.

a. Appreciation is current income

The income of depreciable capital is cash flow less depreciation. The income of appreciable land is cash flow plus appreciation. That is quite a difference: they move in opposite directions!

With land held for appreciation there is no cash flow to disclose the high values and the steady accrual of gains in wealth. This quality of “silent accrual” is found in land surrounding cities, or growing retail centers, as well as in land that is considered potentially mineral-bearing. Other land is valued for expected higher future cash flows in its present use, or some higher use to come. Some land is valued for future “plottage” increments from assembly, or “negative plottage” from subdividing.

Professors Haig and Simons have given their names to the standard definition of income which includes unrealized appreciation of durable assets like land and corporate shares as current income. Stock brokers and real estate brokers habitually do the same thing for the trade. They may appear to question it when lobbying for tax breaks, at which time some say it is “double taxation” to tax both current cash flow and appreciation. When selling stock or real estate, however, unrealized appreciation is unequivocally touted as current income, and correctly so.

Some even deny that appreciation should be taxable income at all. Yet, no one denies that depreciation should be a deduction from current taxable income. This asymmetry and glaring contradiction generally passes unremarked. It could only survive if never challenged in the profession, which apparently it is not. “Land,” with its tendency to appreciate, is not in the abridged lexicon.

b. Landowning yields large non-cash service flows

Land income also includes service flows other than cash. Because of its versatility, and fundamental character, land often yields service flows in kind that never pass through the market place. For example, land used for homes and owner-recreation yields no cash flow at all, but has high value.

It is common for economists to write of the “imputed income of durable consumer capital”, especially owner-occupied houses, and occasionally to persuade some political candidate to advocate including their imputed income

in the income tax base, or at least to end the deduction of interest and property taxes paid on house values. Those making such proposals, unfortunately, fail to exercise reasonable care in distinguishing houses from land. Much or most of the non-cash service flow received from consumer capital proper is not income at all, but two other things: a return from operation, maintenance, and upkeep; and a return of capital. Depreciation and expenses offset more than half the service flow from most owner-occupied houses, especially middle-aged buildings on the steep slope of the depreciation curve. The service flow from land, on the other hand, is pure income.

The measure of this imputed land income is not subjective nor fuzzy. It is interest on the market price of the land, a measure of its opportunity cost. Alternatively, it is the periodic ground rent on comparable lands. This could easily be included in the base of the present income tax, converting it in one stroke into a national land tax.

Forest land yields cash only once in decades. Some land is valued mainly for ancillary benefits like the preferential access it gives to adjoining lands for grazing, recreation, water rights, waste disposal, information gleaned from mining, etc. Other land is held for its contingency value, for example for possible future expansion. Some is held pre-emptively to freeze out competition, and some is used (under current US income tax laws) to yield non-cash tax shelter benefits.

Part of farmland value is an amenity, especially of course in pleasant places. The value of lands held for the owner's recreational pleasure is noncash. Part of the value of media ownership - especially through control of the radio spectrum - is power and prestige. Business sites in Newport Beach give access to water recreation; in Cambridge, Mass., to intellectual stimulus and hobnobbing. The list of non-cash service flows from land is much longer. As the 15th Earl of Derby wrote 1881:

The objects which men aim at when they become possessed of land in the British Isles may, I think, be enumerated as follows: (1) political influence; (2) social importance, founded on territorial possession, the most visible and unmistakable form of wealth; (3) power exercised over tenantry; the pleasure of managing, directing and improving the estate itself, (4) residential enjoyment, including what is called sport; (5) the money return - the rent (cited in Douglas 1976: 17).

In Ireland, during rent wars, boycotts, etc., landlords "had long decided that Ireland would yield few of the spiritual delights of land ownership." This resulted in lower prices for Irish than English land.

c. Land income is a large share of national income

Throughout history the prime business of national governments has been to gain and keep land, mainly by force and threats. The prime business of politics has been to apportion lands among the winners. A third business is then to subsidize them in various ways. It is most inconsistent, then, when the winners of all three battles counter tax proposals by pleading poverty, saying their land has little value. How little value it has may be gauged by playing “what if?” What if the English, with all their capital, were removed to Antarctica? What would be their national income?

Less drastically, we might just ask what the owners would sell England for?

A common way to trivialize land values is to play “what if the owners tried to sell it all at once?” What if, instead, we went to buy it all? Much of it has been off the market for centuries, with reservation prices effectively infinite.

Consuming land means pre-empting its time. To consume most goods and services is to use them up. Land is not used up. “Consuming” land must have some other meaning, therefore, than the intuitive and common idea that consuming means turning-to-waste. To consume land is rather to pre-empt its service flow without impairing its substance. To consume land is to occupy it for a time-slot, which may be as brief as beating a red traffic light on the highway or (rarely) as long as the pyramids last. After us life goes on, on the land once left to us which we then leave to others. “Time-sharing” was not invented by the holiday industry but is inherent in the nature of land and life.

How shall we measure land-consumption by owners, where no rent is paid? Is it purely subjective? Does it vary with the owner’s mood and health? It is simpler than that, and fully practicable. The essence of consuming land is pre-empting the time-slot from others. Thus, holding land without using it, or using it below capacity, is a form of consumption. The measure is the market opportunity cost of land, i.e. the price multiplied by the interest rate. Holding an urban site has been likened to holding a reserved seat at a play, sporting event, or concert. The ticket holder properly helps pay for the event, whether or not he is there to enjoy it. As a result, very few paid customers fail to show up. Likewise, people who pay cash rent for land seldom leave it vacant. Doubtless if people paid regular cash taxes to hold land, they, too, would consume (pre-empt) less.

Proponents of “consumer taxation” almost universally overlook this point. I am not aware of one who has proposed including land-consumption in the tax base. Aaron and Galper (1985: 76), propounding a “cash-flow tax,”

explicitly allow for letting each succeeding owner rewrite off the purchase of land as a cost of production, effectively exempting land rents from taxation 100%. Robert Hall and Alvin Rabushka (1995: 62), authors of *The Flat Tax* (the flat taxers' bible), propose the same.

Theirs, and other proposals, and consumer taxes actually imposed now and in the past, bear heavily on the necessities of median income families. We deride the salt tax of the French ancient regime, and of pre-Ghandian India. We recognize them as instruments of tyranny and class warfare, even as we tolerate modern legislators who impose comparable burdens on ourselves, and economists who rationalize such taxes by belittling the necessities of life.

In doing so, they compound the deception in the label "consumer taxation". Much of what is taxed in the name of taxing consumers is actually used for capital formation: human capital formation. The same economists who say human beings are or contain capital, turn around and tell us to tax the formation and maintenance of such capital, by calling it "consumption." Coupling this with their proposed exemption of land-consumption we have the ultimate victory and application of semantic cleansing.

It follows from the above that land's rent is its opportunity cost, regardless of use. This means land rent is a much larger share of national income than national accounts presently show. Land income is a prior claim to the joint product of combined resources. To consume land economically is merely to pre-empt a time-slot from others, regardless of what one does with it. The unrealed harvests of idle land flow like water wasting through a desert into a salt sea. Lost water may sometimes be useful downstream; lost time never returns. To keep others from using a time-slot is to consume it.

A great deal of land in fact is not allocated to its highest and best use. The value of pre-empting this land is the highest and best use that might have been made of the land pre-empted. That is the economic cost. The land is not responsible if the manager fails to realize its value at optimal capacity. Neither are the persons who are excluded. Only the pre-emptor is responsible, as a manager. This person is the residual imputee who deserves credit for performing above par and blame for falling below.

Most economic theorizing has failed to bring out this point. The tendency is to treat ground rent as a residual, a waste basket for all the errors and dereliction of responsible economic actors. Too many economists who make much of "choice" and "opportunity cost", fail to apply that properly to land, when estimating its value. This has resulted in greatly understating the value of land relative to other factors of production. Institutional and

social factors, too, often obscure the opportunity cost of land. Of course, definitions are arbitrary and one may define rent as he pleases - and many economists do. However, as a proponent of a tax on land rent, it is my right and duty to define the word "rent" as intended in the proposal.

This is a case where theorizing lags behind practice. In dividing value between land and a building affixed to it the standard practice of appraisers, and speculative buyers too, is the "building-residual method." The land is appraised as though vacant; the building gets the remaining value, if any. The building, once attached to a specific site, loses the mobility of place and form that fluid capital possesses and has no opportunity cost but scrap value, which is often negative. Land, always lacking mobility of place, retains mobility of reuse because of its versatility, permanence, and irreproducible location.

4. The concept of ATCOR

ALL ECONOMIC PRINCIPLES must be tried and proved at the margin. On marginal land there is no surplus above non-land costs, hence there is no taxable capacity of any kind. Any tax on marginal land, or people, or buildings, or outputs on marginal land, renders it sub-marginal (Ricardo 1821: Ch.11).

Seligman (1913: 66-99) faulted land taxation on the score that marginal communities could have no local tax base. But that is true of any tax. The difference reveals something important about the exploitative character of taxes other than those that fall on the rent of land.

- Land taxes on marginal land are zero. This means that intra-marginal land has to fund public expenditure.
- Other taxes, if they are imposed on people who occupy marginal land, add additional costs of living on no-rent land. These have the effect of scorching and sterilizing that land, aborting its teeming fruits.

The taxable surplus in any jurisdiction can only be the excess value generated above the external opportunity cost of mobile labor and capital. This is identical with land rent. After-tax returns to mobile labor and capital seek a common level throughout the economy. Local land supply is inelastic; local labor and capital supply are elastic. Therefore, any tax nominally levied on buildings must reduce land rent. Conversely, lowering taxes on buildings must increase land rent by an equal amount. Taxable surplus is not lost or destroyed by untaxing buildings; it simply surfaces elsewhere. This is what is meant by the ATCOR concept: All Taxes Come Out of Rent.

When governments lease land to private parties, this relationship is even

more obvious, and is understood by all. A lease contract contains several elements over which the parties negotiate. If one element is higher, then another must be lower to offset it. Thus a landowner may charge a lessee a low royalty for pumping oil. If the royalty is low, then the landowner lets the "bonus" bid, paid up front, be the "bid variable." The lower the royalty rate, the higher the bonus bids that come in. If the landowner is canny, and the bidders many, the landowner thus soaks up all the rent. Similarly, let us view tax payments as elements of rent paid to the Crown. *If sales and income taxes are less, then rent payments may and will be higher.*

Land is the equity interest in the municipal corporation. Rent is the earning on common stock, what remains after other costs. If the tax cost on buildings falls, land rent rises by the same amount, just as earnings on common stock would rise by the amount of any fall of interest on bonds. There is a Newton's Third Law in economics, a conservation of economic energy. This is nothing more than good book balancing: everything must be accounted for.

Suppose a locality could stop taxing buildings altogether and replace the revenue from outside grants. Does anyone doubt that this bonanza would raise local values? *Land rent would rise by the amount of the grants.* Now if the source of the "grant" is a tax on local land rent itself, the land tax simply takes rent which is simultaneously replaced by building exemption. If the total tax levy remains the same, there is no general invasion of the rent now privately collected. Some particular parcels may suffer and others may gain, as in any change of public policy. But the tax base remains intact.

The matter is obscured by the fact that the nominal tax rate must rise, in order to tap the rent in this new manner. I say "nominal" because the tax as a percentage of total real estate value will remain about the same (or, indeed, fall, if there is increased construction). But as a percentage of land value it must therefore rise.

Suppose the present rate on land value is at such a level as to take one-third of present ground rent (after building taxes). Exempt buildings and this same rate will take one-third of the added ground rent, that is, one-third of the former building taxes. To recoup the other two-thirds, the tax rate must rise.

To complete the example, suppose the original ground rent equaled the building taxes. Untaxing buildings then doubles ground rent. The original tax on land took one-sixth of this higher ground rent, the original building tax took three-sixths, so the new tax on land alone must take four-sixths.

Next, by how much must the tax rate rise to maintain the same levy?

Now we are juggling several factors. A simple case would be if land values were to remain the same. The tax rate must rise by the same proportion that the base falls. That proportion is the share of buildings in real estate value. If buildings are half, the rate must double.

But would not land values fall under this higher rate? Wouldn't the higher rate be capitalized into lower land values, leading to a further rise of the tax rate? If there were no change but a higher rate on land, "yes"; but when this accompanies lower rates on buildings, then "no." This is one of those unusual cases when algebra can clarify rather than muddle a point, so, let:

a = original annual ground rent (after building taxes but before land taxes),

i = interest rate, t = original tax rate, B = building value,

L = original land value,

L' = new land value when buildings are untaxed, and t' = new tax rate necessary to maintain same levy.

According to tax capitalization theory,

$$L = a/(i+t) \quad (1)$$

$$L' = (a + tB)/(i + t') \quad (2)$$

Clearing denominators, and subtracting equation (2) from equation (1):

$$i(L-L') + tL - t'L' = -tB$$

To maintain the levy:

$$t'L' = t(L + B) \quad (3)$$

Substituting

$$L = L' \quad (4)$$

therefore, from equation (3),

$$t' = t(L+B)/L \quad (5)$$

Equation (5) takes account of tax capitalization. It leaves us with the surprisingly simple conclusion that *the new tax rate may be forecast on the basis of existing ratios of building to land*. Just multiply the present tax rate by the present base divided by land value - what the simple man would do anyway! But be sure to use true current land values estimated properly from current markets by a good mapper-assessor. Current assessed land values are much too low.

A corollary is that land values will remain unchanged by the tax shift, just as in the simple case before the algebra (above). The land tax simply extracts from ground rent the same amount which is added to it by untaxing buildings. There is no "confiscation," unless the levy rises.

A simple way to grasp how untaxing buildings raises land rents lies in the feudal basis of our law, which is good fiscal theory. The sovereign is a super-landlord administering the royal estate. He asserts his right in the land by collecting taxes, which he may do in various ways. But whatever the nominal base, these are alternative means of gathering rent from vassals on the royal estate. There is a limited taxable surplus, which he can destroy but not exceed. What he takes by one means he cannot take by another. He is always taxing the same real estate; he is just taxing it in different ways.

If equation (5) seems too simple to cover all factors, it is. Actually L' will be higher than shown in equation (2), for several reasons which I treat below under the rubrics of spillovers, excess burdens, and reallocation. Equation (2) accounts only for the removal of the tax on existing buildings, with no account of incentive effects. And in fact it even understates the impact of the one factor it does treat.

That is because of the timing of building taxes: high when a building is new, dropping towards nothing when it is old. Land value being defined as renewal value, it is more depressed by taxes that come early than late in building life. So the land value tax base, L' , will rise more than shown by equation (2). The expression $t \times B$ is too simple and too low. It should be replaced by the present value of all future building taxes annualized by the capital recovery coefficient. To do so will increase L' a great deal, depending on particulars.

Limited space prevents full treatment here, but a simple approximation is possible. The building tax, tB , cuts into land values by almost as much as though it lasted at its peak for the full life of buildings. But it does not. For simplicity assume it lasts half the life of buildings and then stops and that this depresses land values as much as though it lasted the full life of buildings. Assume building ages are evenly staggered. Then half the sites yield no

building taxes, yet all the land values are depressed by the capitalized value of the building taxes even though these are being collected from just half the sites! Thus, the building tax cuts the land portion of the tax base by double the value of the building base being taxed.

In a new city this factor would not amount to much. But in an old central city where 90% of the buildings are very old - that is, in Boston, Newark, and other crisis spots - untaxing buildings would suddenly multiply the tax base. As proof of this effect, note that tax exempt institutions pay a premium for their fiscal status. This premium raises land rents. The Chrysler Building in New York is tax exempt because it is owned by Cooper Union, so the lessee pays a ground rent premium equalling the unlevied taxes (Meyers 1969: 79). Any sale-leaseback deal by which a business borrows the tax exemption of a church, college, or public district exemplifies the same principle.

5. The Excess Burden of Building Taxes

THE ANALYSIS above treats only of taxes actually collected from existing buildings. It says nothing of how the threat of building taxes suppresses buildings and replacement and so destroys taxable surplus before it is created. But that, too, is important. After all, one of the main reasons for preferring the land tax is to avoid impairing incentives.

Taxes on buildings reduce the intensity of site improvement. Just as they sterilize marginal land, the "extensive margin," so they abort marginal intensification of superior or rentable land, the "intensive margin." The aborted outlays include increments to height, quality, perhaps coverage, and, most damaging, earliness of renewal.

A function of the land market is in the development of new areas, or redevelopment when new uses succeed old, to synchronize interdependent private investments that interact synergistically to produce a total community. Thus as a city expands, high land values at the perimeter put simultaneous pressure on all owners there to convert to urban use. Were this mechanism in good working order, planners could extend city services to compact increments of land, initially sizing utility lines and streets for ultimate demand, secure in the knowledge that the ultimate demand would be there in short order. Private builders could orient their plans to a more certain future, minimizing transition costs of, for example, shifting from wells and septic tanks to public water and sewers. Every private improvement could be less self-sufficient and more oriented to the prospect of a total community.

But the market is not in good working order. *Taxation intercedes in*

every land use decision. Every piece of land is periodically mobile among uses - when there is some "sacrament" in its life, such as demolition and construction, sale, subdivision, or assembly. It is then in press among competing buyers, uses, densities, timings, parcel sizes, and so on. In every such press, taxation biases the choice in favor of the lighter taxed use. The real estate tax on building thus always favors old over new; gas stations over apartments; junk yards over factories; parking lots over parking structures; high income residences over low (high income residences are usually less intensive because of larger lots in neighborhoods of higher land value); billboards over offices; unused over improved land; waiting over acting. *This bias has half-destroyed the market as an arbiter among competing land uses, and as an agency promoting urban synergism.* It has lowered the density, retarded renewal, and broken up integral linkages of the central city, fostering in their place random scattering of new buildings at the outskirts. It has so far impaired the city's function of linking small independent industrial firms as to bear large responsibility for today's galloping merger movement in which a key word is - *synergism!* Firms seek through merger and vertical integration the access to services, labor, and supplies which in a well ordered city they could get from independent firms through the market.

The aborted outlays would have created new rents above cost and thus increased taxable surplus. To abort them is a deadweight loss, an "excess burden" from building taxation. It is not building exemption that truly threatens the tax base, but building taxation. The lagging rate of new taxable construction in the United States today dramatizes how serious the threat has become.

Referring back to equation (2), here is a second reason why it understates L' , the land value tax base. The first reason is that tB understates the true gain in ground rent from untaxing buildings as shown above. The present reason is the removal of deadweight loss, or excess burden. We should add a term to the numerator for the rent added by intensification and renewal.

Anyone who has ever learned about diminishing marginal returns can duplicate the basic rationale of excess burden, so I will not labor it. Two special aspects do bear comment, however.

The first is economy of scale in buildings and rooms. As these get larger, diminishing returns do not take the form of higher cost per square foot of floor, for costs fall. What diminishes is the marginal demand of the individual buyer or renter. Taxing buildings is similar to reducing buying power, forcing everyone into smaller quarters. So it forestalls the realization

of economies of scale in building. There is a trade-off of land for capital in supplying floor space. Expanding horizontally requires less capital per increment of floor, but requires more land than expanding vertically. To oversimplify, unit nonland costs fall (economies of scale) when one expands horizontally, but rise (diminishing returns) when one builds upwards.

Now, taxing buildings has the same substitution effect as raising building costs relative to land costs. It puts a premium on holding down building costs. One does this by spreading out rather than rising up, using more land to save on capital. It puts an artificial premium on achieving all economies that save on capital, including scale economies.

Building taxes do make buyers take less floor space than otherwise. But the reduced space they do take will be supplied with more relative emphasis on economies of scale from horizontal spread, because added floorage is gained with minimum added cost and hence minimum added taxable valuation.

There is still a net loss of scale economies. But the greater loss is in the capital-using third dimension (and the fourth, treated next). Land is used more extensively. The scale economy that this most impairs is the social economy of scale of city, market, and society. As each person adds his bit to the spatial barriers among people he worsens access among parts, raises area-sensitive costs, and shrinks the central market and cultural centers.

In terms of tax base, one might now guess that taxing buildings could add to land values by raising the demand for space for horizontal expansion. And this is one element in the picture. It raises the danger that untaxing buildings might reduce the demand for land and reduce the land tax base, as builders go up instead of out.

But economics always involves appraising the net balance of counter forces. In this case, there is a more powerful counterforce. It is true that taxing buildings adds to what a buyer would bid for, say, the hundredth front foot, but it lowers what he will pay for the first ninety-nine. That is because he cannot use the first ninety-nine as intensively. The optimal parcel becomes larger, but the unit rent will be smaller.

In graphic terms, visualize a plotting of land inputs (abscissa) against the marginal net (after all associated costs) product of land (ordinate). With no building taxes the curve arches high, then drops steeply. Impose building taxes and the curve flattens. It falls throughout, of course, because taxes add to associated costs. But it falls more on the left and center, less on the right.

The result is that while every land user bids less for land, bids for smaller

units using more capital per front foot of land fall relatively more than bids for larger units. So units get larger. This resolves the paradox that building taxes raise demand for space but reduce ground rents.

Beginning from where we are now, untaxing buildings will add to what people bid for smaller parcels of ground, but will reduce the aggregate need. The demand for what is now the outer exurban fringe will be relocated to the upper floors of more central buildings, as well as to all floors of new buildings on the great reservoir of derelict land more central than the outer fringe. In this shift there may or may not be a change in aggregate ground rent. But there will certainly be a spectacular fall of public costs, the area sensitive costs of supplying infrastructure in the sprawling fringe. Thus, the need for a tax base will fall a great deal while the base may at worst fall a little, and at best will rise.

The second special aspect of excess burden is in the fourth or temporal dimension. There is an excess burden in the deferral of site renewal. Any tax which varies with the use to which land is put biases the owner in favor of the lighter taxed use. That means the building tax favors old buildings over new.

There are large areas in our central cities which would be renewed forthwith in the absence of the fiscal deterrent. In the 1960s I drew an "isovalic" contour map of Milwaukee County land values, based on several thousand actual sales either of vacant land or of land with old buildings on the eve of demolition. Comparing the bare land values with the combined values of land and old buildings, it was clear that in 25% or more of the city the bare or renewal value of land already nearly equaled the defender values. Remove the fiscal deterrent and the challenge values would have moved well above the defense values, bringing prompt private renewal. Thus, the fiscal deterrent played a primary role in blocking urban renewal. Today, land prices are much higher than they were then, and the buildings 30 years older.

Few would deny that the market has failed to renew our cities fast enough. For this the real estate tax, bearing differentially on new buildings, must shoulder much of the blame. The economical time for an individual to clear and renew land is when the current cash flow from existing or "defender" use ceases to yield a fair return on the "scrap value" of the site in the most eligible succeeding use (the "challenger"). This scrap value is the "discounted cash flow" (DCF), i.e. the present value of future income less the present value of future costs.

The land-based tax is neutral in this decision, because it is unmoved by renewal. It is the same on the defender as the challenger. The building-

based tax is unneutral and inhibiting because it rockets upward when new succeeds old. It weakens the challenger *vis-a-vis* the defender, by the amount of tax increase. Not only is the new building valued higher than the old: often assessors seize this occasion to reassess the land upwards, adding to the bias against renewal.

The general qualitative direction of the bias is clear. Quantitatively, the number of years during which building taxes retard site renewal depends, among other things, on how the cash flow from old buildings drops off. If it plummeted off steeply, then renewal dates would be preordained by nontax factors, and tax policy would be unimportant. If it tails off gradually, a substantial tax bias against new buildings retards the renewal of each site regarded individually; and of neighborhoods and school districts even more, as the nonrenewal of each site robs neighboring sites of their renewability, and suppresses competition from new buildings which would pull tenants from old defenders.

A number of time series showing historical income experience of commercial buildings have been compiled and published by Leo Grebler (1955), Fred Case (1960), and Louis Winnick (1958). I have deflated them for price level changes. They are much affected by cycles of depression and war. The general time pattern and period of dropoff is clear enough, however. Real income from old buildings dwindles away slowly over many decades, in spite of depreciation and obsolescence. There is no sharp cutoff, no predestined date of demolition determined by technology or taste. Even when an old building has gone vacant, it may come back. After World War II, real income of many buildings rose sharply.

Another source of data is the Institute of Real Estate Management "Experience Exchange" among members of the N.A.R.E.B. In 1967, their 1,069 respondents reported on operating ratios (total expenses including real estate taxes divided by total actual collections) for apartment buildings classified by age groups. For elevator apartments the ratio rose gently from 45% for 1961-66 birthdays to 59% for all buildings over 47 years old, that is, pre-1920. For low-rise apartments it was from 41% to 58%; for garden apartments from 40% to 48%. In other words, almost half the gross collections from old apartments represents net income to the owner. A powerful factor that helps to hold down these operating ratios is that real estate tax expenses keep falling as a building ages.

Measured in years, therefore, the fiscal deterrent to urban renewal - the threat of increased taxes on new buildings - retards by decades renewal of the individual urban site.

The deterrence is greater than simple numbers show. Unwise taxes

may defer private renewal not just for decades but indefinitely, because there are reverberating neighborhood effects, from deterioration of old buildings which progressively rob sites of their renewability. Unused and blighted land lies among used parcels and disrupts their symbiotic interactions, which are the heart of public land planning and the essence of urban civilization. With that in mind, cities are constantly intervening in the real estate market to subsidize renewal in various ways. For example, some Milwaukee suburbs, recognizing their fiscal and neighborhood interest in site renewal, have quietly entered the real estate market, bid on older houses, and willingly absorbed demolition losses, without federal subsidy, in order to accelerate renewal. They buy for the market, demolish, and resell land for a loss. They reckon that the present value of the augmented future tax stream is worth to them as tax collector at least the loss, even though they receive only part of the increased property taxes. (They are also motivated by shared state income taxes.) Recalling that the tax collector's meat is the taxpayer's poison, that suggests that the removal of fiscal deterrence would push the threshold of renewal clear out into high income suburbs, selectively. That is, the prospective future tax stream has to the challenger a high deterrent value. If taxes were unmoved by renewal, the bidding power of challengers *vis-a-vis* defenders would rise by that amount or more (whether by a rise in the former or a fall in the latter, or both) and renewal would occur without any subsidy of write-down.

Urban renewal is a social, synergistic phenomenon. The renewal of one site speeds the renewal of nearby sites in at least three ways. First, it raises the renewal or challenger value of nearby land. One new building gives heart to potential builders of others, who naturally prefer new buildings for neighbors. Slum environs can virtually destroy the renewal value of land. One or a few sound new buildings as *Inspiration* can support supplementary and complementary renewal in the neighboring area. The GM building on 5th Avenue, New York, at the southeast corner of Central Park, when new, was reported by *Fortune* to have doubled floorspace rentals across the street.

This, of course, raises the negative possibility that new buildings strengthen adjacent defender values as well as challenger values. There are frequent complaints that successful urban renewal projects, for example, raise the cost of nearby land for the next project. However, these higher land "costs" are merely asking prices and may be based on higher anticipated challenger values, plus the knowledge that federal funds are on tap to buy. They do not in general represent higher defender cash flow nearly as much as challenger values.

The reason is that new buildings pull tenants from old, which in general weakens defenders. This is the second way that renewal reinforces itself. It is especially true when the new buildings are at higher density than what they replace - something which building taxes also discourage - and represent net new supply.

Where tenants have a choice they move to newer quarters. The oldest defender filters down to be demolished. Its successor then pulls tenants from others, repeating the cycle. In the right conditions the reverberations from one new structure resound through several rounds of induced renewal (Box 7:1).

A third way that renewal reinforces itself is through the higher income that it brings. Renewal means capital inflow, construction payrolls, material sales, new jobs, and so on. This pushes up local income levels. Now new buildings are "superior goods." The higher the local income, the greater the premium paid for new over old floor space, and the stronger are challengers relative to defenders.

So neighborhood and aggregate effects multiply the good done by each new building; conversely, of course, they multiply the damage from the present tax policy, which defers renewal.

But neighborhood effects are not the whole of the story of multiplied effects from taxing challengers more than defenders. Consider that most building is done on borrowed money. We live in a world of credit ratings, cash flows, front money, cash squeezes, and leverage - matters too often underweighed in rarefied theoretical economic analysis. A tax on new buildings, coupled with low taxes on old, weakens the credit of challengers and strengthens that of defenders. It adds to challengers' needs for front money and reduces defenders' needs for any money at all.

A tax on new buildings is at its maximum in the early years, the time of tightest cash squeeze. A high property tax rate today, say at 4%, may take 30% of gross income from a new building. If other expenses take 30%, that is three-sevenths of the net operating income. If the entrepreneur is highly leveraged, as is standard, most of the rest of net operating income goes to debt service. The net cash remaining for the entrepreneur, especially during the early cash squeeze, is doubly leveraged, so a small rise in building taxes can wipe him out. His credit rating in turn is leveraged by the prospects for his equity position. It is a familiar fact that a small rise of mortgage rates causes a large drop in building. Loanable funds rush out of building, not just because borrowers balk at higher rates, but because lenders lower everyone's credit rating because of lower equity income. Real estate taxes on new buildings add to costs in the same way as interest rates - that is,

Box 7:1**Chain Reaction from One Building**

MILWAUKEE'S progress during the 1960s represented the ramifying effects that may flow from one new building. Through a series of historical accidents and legal technicalities, Wisconsin had an assessment freeze law that proved unconstitutional after being used essentially just once, in 1960, for the Marine Plaza - a high rise office and bank building. It was the first downtown building of consequence in thirty years. It pulled tenants from other buildings, forcing a wave of remodeling and renewal which changed the face of downtown Milwaukee. By general account, this one new competitor set off the chain reaction. There is a multiplier the like of which few other economic processes approach. The facts speak volumes.

It is not that this one stroke alone was enough. The ripples died out, long before the job was fully done, but the point is this: if one original cause can ramify and drive a multiplier process so far, even though every induced new building was fully taxed, twenty original causes would transform a city, if every induced new building were to be tax free.

they are a fixed percentage of value. A 3%-of-true-value property tax rate hits new building with the impact of a rise of mortgage rates from 4% to 7%; except that the real estate tax is worse because the tax rate applies to the whole value, while mortgage rates apply only to the debt. The tax not only defers renewal by its simple direct impact, but additionally by its leveraged effect on entrepreneur net cash flow and thence on credit ratings.

So it is powerful medicine to convert the real estate tax base to the site value basis. In comparing challenger and defender values in Milwaukee County, I found that a small rise of challenger values over defender values would cause 20% of the central city area to be renewed forthwith; and that the large change resulting from a full exemption of buildings from real estate tax would cause some 50% to be renewed - if the labor and money could be found to do it. These results would be magnified by consideration of the neighborhood effects.

They would be magnified again by consideration of the positive effect of cash squeeze on defenders. So far I have written only of exempting new buildings, but the land basis of real estate taxation does more than that. It raises taxes on defenders. The result is a potent cash squeeze effect. Today's real estate tax puts the squeeze on buildings. The proposed land tax puts it on defenders, holdouts, and pre-emptors of land.

The economic time to renew a site is when the standing building ("defender") ceases to earn a return on the scrap value of the site, as

imputed by the outstanding “challenger.” But challengers pay much more taxes than do defenders. The scrap or renewal value of land is reduced by the full present value of future building taxes. This defers renewal. The unrepaid rents of the deferred renewal period are a deadweight loss.

Land held unrenewed to avoid building taxes is yielding less taxes under present policy than it would under land value taxes.

Let us underscore here a basic point developed above, that has wider meanings. The ATCOR principle says that untaxing buildings will raise land rents by the amount of the tax that is abated. **That understates the matter by a large factor. Land rents and corresponding land values will rise by more than the abated taxes. The land tax base will rise by the amount of the abated taxes on the highest and best future building that might be put on a site.** Generally, that will be much more than the taxes yielded by the extant building.

6. The Synergy of Spillover Benefits

LAND RENT, as we have noted, has three basic sources: nature, public works, and the net benefits that spill over from private land uses to benefit others’ land. There is constant grumbling about negative spillovers, leaving an impression that these outweigh the positive, but if they did there would be no cities, no clustering tendency at all. In fact, land values still rise sharply to the center of cities. And land values are continuous, because builders prefer to anchor onto viable neighborhoods.

Here is a fourth term for the numerator of equation (2). Untaxing buildings and taxing land stimulate building. They encourage compactness, pulling buildings in from scattered isolated outposts where they dissipate their benefits, and the value of teamwork is lost in overcoming the friction of space among the buildings. These policies let a city - and farmers and miners too - realize to the full the economies of spatial agglomeration. These economies are “synergistic,” that is, the whole is worth more than the sum of its parts. The extra value adds to land rent and taxable surplus.

To scatter buildings is to waste synergistic surplus, prodigally. The surplus is a valuable social resource that a sage policy will husband and utilize for the public good.

Many economists have written on synergistic economies of agglomeration (*see Box 7:II*) The sources of its power are many. They include sharing common costs, pooling risk and raising load factors, widening markets and allowing greater specialization, spreading information, fostering innovation, whetting competition, widening choice, facilitating social contacts, and so

BOX 7:II Synergy in Sydney

THE POWER of synergism in a specific city was graphically pointed out by *The Observer* (Sydney, 16 April 1960): "The record \$51 a foot that the British E. Alex Colman group offered for the Sydney City Council's property at the top of Martin Place a couple of weeks ago seems to suggest that the Sydney land boom is far from over...Sydney's land prices have been rising since the war, but the past seven or eight years has been the most remarkable price period. And the most dramatic of the price rises have taken place in the northern part of the city, particularly that once-depressed section of old warehouses, State public service offices, and old insurance buildings between Hunter Street and Circular Quay. The coming of the Quay railway, the huge new buildings (Unilever, I.C.I., and, soon, A.M.P. and British Tobacco) that are spreading along the harbour at the north end of town, have stimulated a remarkable redevelopment of the northern city area...."

"Back in Pitt Street towards Hunter Street there has been redevelopment aplenty. Insurance offices are no longer dull, brown, squat stone buildings dated 1890; they have become steel, concrete, and glass monsters. And there are plans for more changes...It is inevitable that with such interest in rebuilding and development city land values should rise. However, the pace of that rise in recent years has certainly been hectic...Will they keep up? One thing about high land prices and development is that they are self-generating. The growth of a big office sector near the Quay brings added demands to the area - for retail shops, for example...Certainly some sort of saturation point for office space will eventually be reached, at least the backlog of demand will be overcome, and only new pressures will need to be catered for. But this should not mean any falling in the city land prices, at least in the city's northern section."

Urban synergism has been described and in part analyzed in the following: Alfred Marshall, *Principles of Economics*, 8th ed. (London: Macmillan and Co., 1947), pp.794-804; Henry George, *Progress and Poverty* (New York: Modern Library, n.d.), bk. 4, ch. 2; Sargent Florence, "Economic Efficiency in the Metropolis," in *Metropolis in Modern Life*, ed. R.M. Fisher (Garden City, N.Y.: Doubleday and Co., 1955), pp.85-124; Robert Fetterman, *Future of Our Cities* (Garden City, N.Y.: Doubleday and Co., 1961), Ch. 2; Wilbur Thompson, Preface to *Urban Economics* (Baltimore, Md.: The Johns Hopkins Press, 1965), chap. 1; Mason Gaffney, "Urban Expansion," *Land*, 1958 Yearbook of Agriculture (Washington, D.C.: U.S. Government Printing Office, 1958), pp.503-507; Mason Gaffney, "The Synergistic City," *Real Estate Issues*, *J. of the American Society of Real Estate Counselors*, Winter, 1978, pp. 36-61; and E. M. Hoover, *Location of Economic Activity* (New York: McGraw-Hill, 1948), Ch. 8.

on. Nothing less than many books can do justice to synergism. The *Yellow Pages* are Volume 1. Here I merely note it as a large addition to the land value tax base.

There is yet a fifth term for the numerator of equation (2). This is an increase of ground rent, a , that occurs as land changes hands from the credit-strong to the credit-weak. Daniel Holland (1966) and I have written on this elsewhere (Gaffney 1962).

Equation (2) involves the assumption of simple capitalization theory that realized ground rent remains the same as the land tax rate rises. This conventional assumption understates the tax base. In practice rent will certainly rise, as the land tax puts the squeeze on sleeping owners and speculators.

This is essentially a matter of credit rationing. Raising the tax rate on land works to substitute a tax cost for the interest cost of holding land. Interest costs are discriminatory, favoring the wealthy and established. Tax costs are more impartial, and if the assessor does his job right, they are completely impartial. Changing an interest cost into a tax cost therefore raises the holding costs of many present owners relative to alternative owners whose need for the land is greater and causes sales from less to more productive users.

Thus, land taxes are not fully capitalized on the lines of equation (2). As the rate rises, some land shifts to new owners who impute it a higher ground rent.

A parallel effect comes about from untaxing buildings. The building share in real estate is higher for the poor than for the rich. Untaxing buildings adds to everyone's power to bid for land ($t \times B$ in equation [2]). But it adds more to the power of those with higher ratios of building to land.

The combined effects of credit rationing and building taxation now act to pen up the poor and middle classes on a remarkably small share of the land in every city. Their potential demand for living space is suppressed. Since they have so little, the price elasticity of their demand for more must be greater than that of the rich, who have so much already. Removal of present barriers to the full expression of their demand should therefore result in a net rise of imputed ground rent.

Credit rationing is often perceived as a "wealth effect." We hear a lot about how the site value tax is economically "neutral," and leaves the market alone to do its work. In an important sense that is true. But tax theorists have long noted that taxes have two kinds of effects. There is the marginal effect, and the wealth effect. Land taxes have no marginal effect, that is, the marginal increment of capital applied to land is not taxed, and

that is a great virtue. But land taxes do have a wealth effect. They drain wealth from holdouts and reduce their holdout power. It is not a small matter.

In some European colonies in Africa, the European governments once forced natives to work in the mines by levying a head tax. The natives, living happily in the bush, were forced to work in the mines to raise the money to pay the head tax - or else go to jail. That is a wealth effect. The land tax uses the same principle in favor of labor. It forces landowners to put land to use to pay the tax. But there is no jail in view. It is a carrot and stick phenomenon. The carrot is the option of building on land free of building taxes. The carrot and stick together get results. The carrot balances the stick in terms of equity. Everyone gains.

That might seem too obvious to spell out were it not that there exists an influential, highly reasoned philosophy that pretty well dismisses wealth effects. To this school of thought it does not matter who originally owns property or who begins the game with all the chips. Create good tenure rights, minimize transaction and information costs, and the market will lead to the same ideal results. For example, charging polluters an effluent tax leads to the same results as "bribing" them not to pollute so much. It is this kind of thinking that makes a tax on site value merely "neutral." There is far more in taxing the earth than is comprehended in this poor philosophy. In my opinion the wealth effects are at least as important as the marginal or trade-off effects.

7. Taxing Land Economizes on Public Capital

WHEN public works are extended, land assessments rise. This brings in private buildings to match the public, nicely synchronized with it and with each other. Planning needs such a tool. And here at last is a way to relieve people of tax - true tax relief achieved in the only possible way by economy in public spending, not by the childish dodge of substituting another tax and calling it relief.

Compact settlement reduces almost all public costs *per capita* since most of these, and many private costs as well, vary with the length of streets and lines. This important principle has been obscured in many comparative studies because they have lumped school costs with land-service costs. High density does not reduce school costs, except in small ways. It does reduce street improvement costs, capital budgets, linkage and distribution costs, and all the other costs that vary with area, like the costs of flood control and radio coverage, for example.

By stimulating rebuilding and new building and putting land to full use,

the site value tax stimulates employment. This cuts down on welfare costs, which affords true tax relief.

This has to be viewed in the national perspective. Many people are preoccupied with viewing the property tax in provincial and particularistic terms, and they think of employment as a pestilence, inviting problems and especially school taxes into their enclaves. But here we are discussing the property tax as a national institution. The national effects of a national change in the character of the tax would be to increase the demand for labor nationwide, and abate the problem of unemployment and its derivative evils. It would not involve flooding any one particular jurisdiction with the rejects of the others.

Looking at it this way, you can see why some have thought that the site value tax might tend to accomplish the goal that we once hoped Keynesian policies would achieve, to wit full employment. Society has now allowed this utopian dream to be entertained, and even legislated it as a national goal in the Full Employment Act of 1946. The Keynesian approaches seem to have been pushed past their load limit, but perhaps at least it is permissible to dream some more. It was unrealistic of the old Georgists to expect local jurisdictions to solve the national unemployment problem with local tools. But now that we have a national Full Employment Act, and an Advisory Commission on Intergovernmental Relations that is concerned with the property tax, could we not begin to think of the property tax in part as a tool to help achieve full employment?

A sixth addition to equation (2) should be a dynamic growth factor. Untaxing buildings will attract capital and free a city to flourish. Growth prospects add to land values above and beyond current rents. As shown earlier, the resulting accrual of land value and of city borrowing power are current income.

My review of the philosophy of public finance has emphasised the efficiency aspects of treating the value of land as public revenue, rather than the justice issues. In fact, the two are interrelated - as in the arguments in favor of the income tax (*see Box 7:III*).

Box 7:III**Progressive & Regressive Taxation**

THE INCOME TAX is defended by many because it is supposed to enable the tax authorities to levy progressively higher charges on the higher incomes.

The share of wealth that is land tends to increase with total wealth, making the land tax very progressive.

The use of land is regressive, making a land tax progressive relative to taxes levied on activity. The land tax may be as heavy as the community likes without driving away capital; in fact, the higher the tax, the more capital it will attract. No other tax can make that statement.

Housing taxes proportioned to housing values bear heavily on the poor. One reason is that a unit of shelter commands a minimum floor value, however miserable, simply because it enables a person to survive in a community. Above this floor, higher rents command higher quality out of proportion to the higher rent. A parallel reason is economies of scale in building. Double the cost and you may quadruple the space in a building.

For these reasons it is generally believed that housing values (and taxes based on them) do not rise in step with income, which severely limits possible property tax rates. Margaret Reid (1962) has challenged this view, and a debate rages. The resolution which the debaters have yet to see lies in the fact that outlay on buildings rises with income slower than outlay on land. The share of land in housing values tends to rise with value of house and lot together.

The plight of many people on marginal incomes in small houses sets an upper limit on the building tax rate. There is no such general limit on land taxes. While there are individual instances of poor people holding valuable land, this is almost a contradiction in terms. In general the land tax is progressive, for two reasons.

- (1) It is not shifted, so only an owner and not a tenant bears it.
- (2) The ownership of land is highly concentrated. As a consumer good, land is a superior good and a status symbol. As an investment, land promises capital-gains type income with minimal management problems, traits that attract the wealthy buyer.

Unlike most progressive taxes, land taxes do not suppress incentives or distort allocation. Therefore, there is no upper limit to the tax rate that may be applied to land, either on distributive or incentive grounds. Untaxing buildings removes the usual objections to raising property tax rates. It enables a community to socialize as much of its taxable surplus as is possible under any system of taxation.