Critique of South African Katz Commision (sic) Reports

S. African Department of Finance

Critique by Mason Gaffney

8th Report - LAND TAX

Chap. 2 THE ECONOMIC EFFECT OF A LAND TAX ON AGRICULTURE

n.d., but emailed to me by FH, 3/20/99. FH got it from Peter Meakin

Comments by Mason Gaffney, 28 March 99. Numbers in my text refer to section numbers in the report.

1. Polemic tone

This report has a polemic quality, barely concealed, that betrays the anonymous authors' intent to make a debaters' case against the land tax on agriculture. Examples follow:

A. No. 30, a land tax is an "intervention"—other taxes, apparently, are not. This device is repeated later.

"Intervention" is a code word used tendentiously by partisan economists, especially those working from libertarian premises, to stigmatize selected policies they do not like, while sparing policies they do. In the present case it may be used, rather, to stigmatize changes from the status quo—cf. B, below.

B. No. 40, the optimum farm plan without a land tax is "used as a base scenario." That means that any effect that they impute to a land tax is a departure from the ideal, hence a "distortion"—a word they use again and again. Thus, the "ideal" base situation is the status quo, whatever that happens to be. Most economists would rather take some untrammeled market condition as the ideal—that would at least have some rationale other than stasis.

In No. 80, they conclude that a land tax violates the "principles for an efficient and coherent tax system," but they do not state those principles, other than as above.

Others, ignored in this report, would not accept the inherited distribution of entitlements to property as a starting point. They would object first to the obvious distributive inequities, based on histories of conquest and forcible eviction (not just in South Africa, but worldwide). They would go on to note that the prior distribution of landownership endows the owners with greater bargaining power in the market, relative to the landless. Both those points are ignored in the report.

C. No. 63, they fault a land tax based on market value because it "does not account for the ability to pay principle…" This is inferentially because amenity values yield no cash, although the point is not made explicitly, and the quoted words are just gratuitous at this point, an *obiter dictum* without support or explanation.

If they treated the point fully, instead of taking just this "Parthian shot," they would have to deal with the point that all urban owner-occupied residences yield no cash, but pay property taxes based on market value. This is why the property tax is the only way to tax imputed income, which all economists agree escapes from what is misleadingly called "the income tax" (but is in practice more of a selective tax on cash wages). The modern development is that vast rural areas have become extensions of urban residences, along the lines of the English lordly deer parks of the 19th century.

The authors might be called on to ask who would pay for public services if urban residences were made tax free, as they implicitly recommend here. Property taxes are one source of urban fiscal surpluses from which farmland owners benefit.

With some more thought, the authors would also realize that land that is ripening into a higher use yields another form of invisible income, viz. the annual accrual of market value. They would realize that the land tax takes a portion of this each year as it accrues. Most economists have accepted in principle the "Haig-Simons" definition of taxable income, in which such unrealized accruals are income at the time they accrue. By failing to acknowledge this, and as it were "playing dumb" about it, these authors are keeping the discourse at a low level. As they purport to be economists, we may assume they are aware of imputed income and Haig-Simons, but choose to maintain silence, with the evident intent of discrediting the land tax.

D. No. 69, a land tax "negat[es] the equity principle," because its "effect" on "net farm income" (narrowly construed in strictly cash terms) varies among regions. They call this a "distortion."

The word "effect" here means compared with the status quo, which is taken as ideal. Cf. 1, B, above. By implication, all existing policies should be frozen, because any change is a "distortion," by definition. One obvious question, with such a criterion, is at what date should we have frozen the system? A land-taxer might choose the year before VAT was imposed, for example. It would add weight and credibility to the authors' use of "effect" and "distortion" if they could document their having opposed VAT on this status quo principle. Or is this principle used selectively against land taxation?

2. Methodology

They present us with a "black box" methodology, linear programming (LP), which they hardly explain or describe. This immediately restricts the audience to those who are adept at linear programming, and those who will take the alleged results on authority or because they are intimidated. This is pretty clearly the authors' intent. They perform all their operations behind this screen, like the Wonderful Wizard of Oz, who did it because he was, if you recall, a humbug.

They provide generic praise for LP, but no explanation of what it is, or how it works, or its limitations, except that its assumptions are "somewhat restrictive" (No. 30). Basically what it does is reduce the relations of production to a set of linear equations, assuming fixed factor proportions (even though these relations are not really linear). Because of the simplicity of linear algebra, these equations can be placed in a matrix and solved simultaneously—usually now with use of canned programs that the operator need not even understand, hence cannot explain. This may be the case here. See No. 57, where the text says the land tax will exceed the income tax, and "The reasons for this *MIGHT* [emphasis added] be…" so and so. Why "MIGHT" be? If the analyst knows his data and methods, he should know why he gets the results he does.

The limitations are glossed over by calling the procedure "rigorous" (No. 30), just because it uses mathematics in the form of matrix algebra, and in spite of its "restrictive [read: unrealistic) assumptions about the way in which markets, and biological processes, work." This concept of "rigour" betrays a mindset that is unfortunately widespread in academia today, wherein the analyst sacrifices reality in order to force the facts into some canned model he has learned in school with which to overawe his readers, and keep others out of the dialogue. Let's look at some of these limitations:

A. "Certain resource limitations" are taken as given (No. 33). This means that the existing factors of production in place on each individual farm unit are taken as fixed; the only question answered is how best to combine these.

Thus, LP is mostly used as a tool for advising individual farmers how to farm with what they have; or how best to mix hog feed (the standard early application of LP); but not for analyzing public policy, which may involve applying more labor and less land, for example, and selling off the excess land.

In No. 34, "a typical linear programming model would indicate how much land is used and *HOW MUCH IS UNUSED*" (emphasis added). That is, the model may tell the landowner he has too much land with too little labor and equipment, but that moral is not drawn—he is simply advised not to use some of his land. (What they call the "shadow price" of land looks like what other production theorists have called the "marginal product" of land, but they have to give it a new name because marginal productivity entails diminishing returns, which is nonlinear. How the shadow price can be positive when the landowner holds more land than he can use is not explained, but flies in the face of common sense, and surely calls for some answer.)

Again, in No. 58, after a land tax is raised, "Labour hours remain constant because of the static cost structure." This allegedly static structure is strictly an artifact of the rigid LP model—it does not bear on reality. Reams of experience have shown that one result of raising land taxes is to put many landowners with excess, underutilized land in a cash flow bind that impels them to hire more workers to raise their yields. A model that cannot handle this possibility is of no use analyzing public policy. One alleged virtue of a land tax is precisely to induce such a reaction, making more jobs and feeding more mouths.

B. No. 35 says that LP tells them that a rise in the land tax is a rise in the "overhead cost" of a farm. Clearly their LP program is not calibrated to tell them that interest on the purchase price of land is part of the financial "carrying costs" of land, which are part of overhead cost to a new buyer; and that potential selling price ("opportunity cost") is also part of overhead cost to an old owner; and that changes in these just offset changes in the land tax, such that the carrying costs are always equal to the ground rent, i.e., are unaffected by a land tax. This is not matrix algebra, but financial algebra, with which the authors seem unconversant, even though this report comes via the Department of Finance.

Accordingly, most economists teach that a land tax is "neutral," and has no effect on the organization of a farm (except through wealth and cash flow effects which the authors, to their partial credit, occasionally allude to). Ditto for the carrying costs of land, of whatever kind: they are part of "fixed costs," which do not affect the intersection of marginal costs and marginal revenues. Our authors offer no explanation of how the mystery and wizardry of LP changes this received doctrine.

3. Primitive agricultural fundamentalism

No. 46, we begin to see the implicit assumption that this study is concerned entirely with the welfare of existing farm landowners, not with South Africa as a whole. This does not seem fitting in a Finance Department report concerned, presumably, with the nation's welfare.

No. 49, farmers oppose an "agricultural land tax." This is unclear. It would be useful to know the authors' original assignment, or terms of reference. The very title of the report is ambiguous: "Effect of a Land Tax on Agriculture." Does that mean, the effect on AGRICULTURE of a GENERAL land tax; or the effect of a land tax LIMITED to agriculture? Obviously, ANY tax limited to agriculture would bear heavier on agriculture than the absence of taxes; that needs no special proof, nor LP models, especially when public services are held constant, as in this paper (e.g., No. 49).

I surmise the status quo is that agriculture pays no land tax at all, and cities do, and what is being considered is extending the urban treatment to farmland—a step in the direction of uniformity, which would indeed by "non-distortionary," in most meanings. With a little tendentious vagueness and ambiguity the authors make this seem like a new and therefore somehow unfair imposition on owners of farmland. (Such tendentious ambiguity is part of the agricultural college culture, and may have become ingrained and subconscious with the authors.)

The authors say nothing about what jurisdictions will be levying the proposed tax, or how the money is to be used, leaving these vital matters to the readers' speculation.

In several places, "farmers" and "landowners" are used interchangeably. This glosses over ownership of farmland by absentee urban residents and financial institutions, who are thus transmuted into "farmers" with dirt in their nails; while farm laborers are treated not as "farmers," but as impersonal hired inputs. This all fits with modern agricultural fundamentalism.

No. 50, in Gauteng, "market values are distorted by non-farm factors." The authors evidently believe that non-farm demands for land are somehow illegitimate and distortionary—an element of farm fundamentalism.

No. 51 refers to "land prices in South Africa as a whole." From the context this seems to refer only to farmland prices, although when read literally it includes prices of city land, mining land, spectrum assignments, et al. One suspects these authors still harbor the archaic superstition that "land" refers mainly to farmland.

In No. 57 they fault the land tax because it will bear heavier on farmers than the income tax, because of "widespread evasion of income tax," and "a low average income tax rate applicable to farmers." This seems to say that a tax is bad if farmers cannot evade it, and good if they can. This is agricultural fundamentalism of a high order. Thus, this report is a brief *ex parte* farmers who avoid their share of the common tax burden.

In No. 65, they attribute a multiplier effect to net farm income, and fault the land tax for reducing the net income. That is extreme agricultural fundamentalism, ignoring the mutuality of multiplier effects. Mutuality is not exactly news: Adam Smith, in *The Wealth of Nations*, wrote two chapters on how the commerce of the towns stimulated the development of the country.

In No. 66, they partly concede the above, but more in form than in substance, for they now claim the multipliers for agriculture are larger. They offer no support for this claim, nor do I know of any.

In nos. 72 and 73 they fault the land tax because they allege it bears heavier on farm landowners than RSC levies, etc. What about non-farm landowners? What about workers and investors in buildings and equipment? Are they not South Africans, too?

What, too, about the efficiency of resource use? This section shows no concern with that, but only with distribution. It favors turnover taxes and wage taxes and VAT simply because they will bear lighter on landowners (at least, the ones selected for their sample) than land taxes will. The facts that they discourage production and employment, and drive marginal lands out of use, are given no consideration.

No. 75 faults a tax on "market value" because it will be higher, relative to cash farm income, than a tax based on capitalized cash farm income alone. The clear message is that landowners who call themselves "farmers" should be allowed to receive imputed income from the amenities of land, and invisible income from accruing gains in value, free of tax.

No. 46 faults a land tax in Gauteng province, where non-farm factors dominate land prices, because it will have a high effect on "farm incomes." This presumes that a tax comes "out of" farm incomes, and them alone. It is as though someone had a mansion with a small vegetable garden, and the taxes on the mansion were presumed to come "out of" the produce of the garden. Actually they mainly must "come out" of the imputed income of the mansion, using cash from some other source. Likewise, in Gauteng, land taxes come "out of" the invisible, imputed income of the "non-farm factors." It's not that the authors are unaware of imputed income; they enter it on the positive side of the income statement when it comes to explaining high land prices. They only delete it when lamenting the fate of the landowner whom they now paint as the victim of the high prices of this land that he holds voluntarily.

In fact, many students of land markets have observed the tendency of appreciating land around growing cities, or in regions of high amenity values, to be agglomerated or retained in vast, speculative holdings. One might go back to L.C. Gray's classic article on "Land Speculation" in the old *Encyclopedia of Social Sciences*, 1931, where he illustrates this principle with data from Germany. I can supply extensive data from California, like the 82,000 acres of prime land attached to San Simeon, the lordly palace of William Randolph Hearst, including miles of shoreline, north of Santa Barbara. To picture these combinations of baronial estates and land speculations as "farming" is to stretch the meaning of words prejudicially.

4. Database lacking

The data they cite come from their own tables, but the tables themselves are neither sourced nor explained, other than that the data have been processed, in some unspecified way, through LP models. There is no way, however, any other researcher can replicate their work to check its accuracy, for they do not show their work.

Thus in No. 57 they "support" a point by writing, "Table 2.1 shows…" Table 2.1 is only a set of numbers that may be pulled out of the air, so far as we know. It cannot "show" anything, except that the authors have chosen to enter certain numbers, of whose provenance we know nothing. See nos. 51 and 58 for more of the same.

5. Errors, blunders, and contradictions

No. 51 says that landowners may shift a land tax "down" to tenants. Few economists would agree.

No. 52 states that lower land prices do not make more buyers eligible to buy land, if the % rate of return on the land price remains the same. This entirely misses and fails to address the main point, that a lower price, per se, eases purchase. A buyer will now find that his equity comprises a higher fraction of the purchase price, making more buyers eligible for credit.

The essential effect of a land tax is to substitute a long series of tax payments—theoretically, an infinite series—for a high purchase price up front. This has the same effect as extending credit to all potential buyers on the same terms, thus removing credit rationing as a force determining who can buy land. This reasoning is spelled out in this writer's chapter in Riel Franzsen (ed.), **A Land Tax for the New South Africa**, published at the Universiteit van Pretoria by the Faculty of Law. One would think that the authors would at least acknowledge that such a position has been advanced in the South African literature on land taxation, if only to refute it, rather than brush it aside by ignoring it.

No. 51 states that a land tax of 1% will lower land prices by 5.3%. No source is given but a table, which is only a set of numbers of unknown provenance, massaged by a Wizard of Oz behind a curtain of obscurity. Basic valuation theory says the tax will lower values by 11.1% (because .08/.09 = .889), using their assumed interest rate of 8%, and using their implied assumption that the taxes are all "onerous," in Marshall's sense—i.e., that they are exported and used elsewhere than to serve the lands in question.

No. 52 states that a land tax of 2% will lower land prices by 12.32%. It is not clear whether they mean lowered from a tax rate of zero, or of 1%, but either way their finding is hard to replicate. It also entails saying that successive increments of 1% to the tax rate will have ever-larger effects on land prices, when the opposite is true.

No. 53 says that a fall from R297.75 to R218.40 is a drop of 12.32%. It is actually a drop of 27%. Has this material been proofread? Are the tables beset with such errors?

Next, in No. 53, they invoke "variable weather conditions" to explain why land values and net returns will drop by different fractions. They offer no rationale for this implausible claim, but hasten nonetheless to say it shows a land tax will not favor new entrants. Their reasoning, if any, is opaque; but their eagerness is transparent to seize any stick to beat the land tax.

No. 54 states that there is a "theoretical argument" that a land tax rate of 4% to 5% will make land values fall to zero. What "theoretical argument?" Basic valuation theory says that land values are derived from ground rent, divided by the sum of the interest rate and the land tax rate. Thus, even a land tax rate of 100% is still too low to reduce land prices to zero. This is the basic theory of tax capitalization, used by all valuers. How can these authors say anything of value about land taxation when they are unaware of such basic, elementary relationships?

No. 35 says that "the whole-farm organization will change" if the land-tax rate changes. No. 58, on the contrary, says that when a land tax is introduced, "no changes occur to the farming structure." Which statement would they have us believe? Which is their real position? Who knows? Not I.

No. 58 says a land tax will force farmers to use more debt. There is no explanation of this, except the usual "tables show" it. What went into the tables, and what was left out, are unknown. Why using debt instead of equity capital is forced, and whether equity is preferable to debt, is not discussed.

There is no refutation offered of the familiar argument that lower land prices let buyers acquire land using less debt, and that high land prices induce landowners with equity to take on new debt to convert their land-price gains into cash.

In summary, I have shown that: 1) the subject report has a polemic tone betraying its authors foregone conclusions hostile to land taxation; 2) its LP methodology is inappropriate to the subject addressed (land taxation); 3) its argumentation is premised on an archaic ideology of agricultural fundamentalism, placing the interests of a few farm landowners above those of the nation; 4) its database is not given, nor its tables explained, yet they are cited as "showing" selected points the authors make; and 5) it is blemished with many errors, blunders, and contradictions that indicate the authors did not exercise due care in their work.