



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

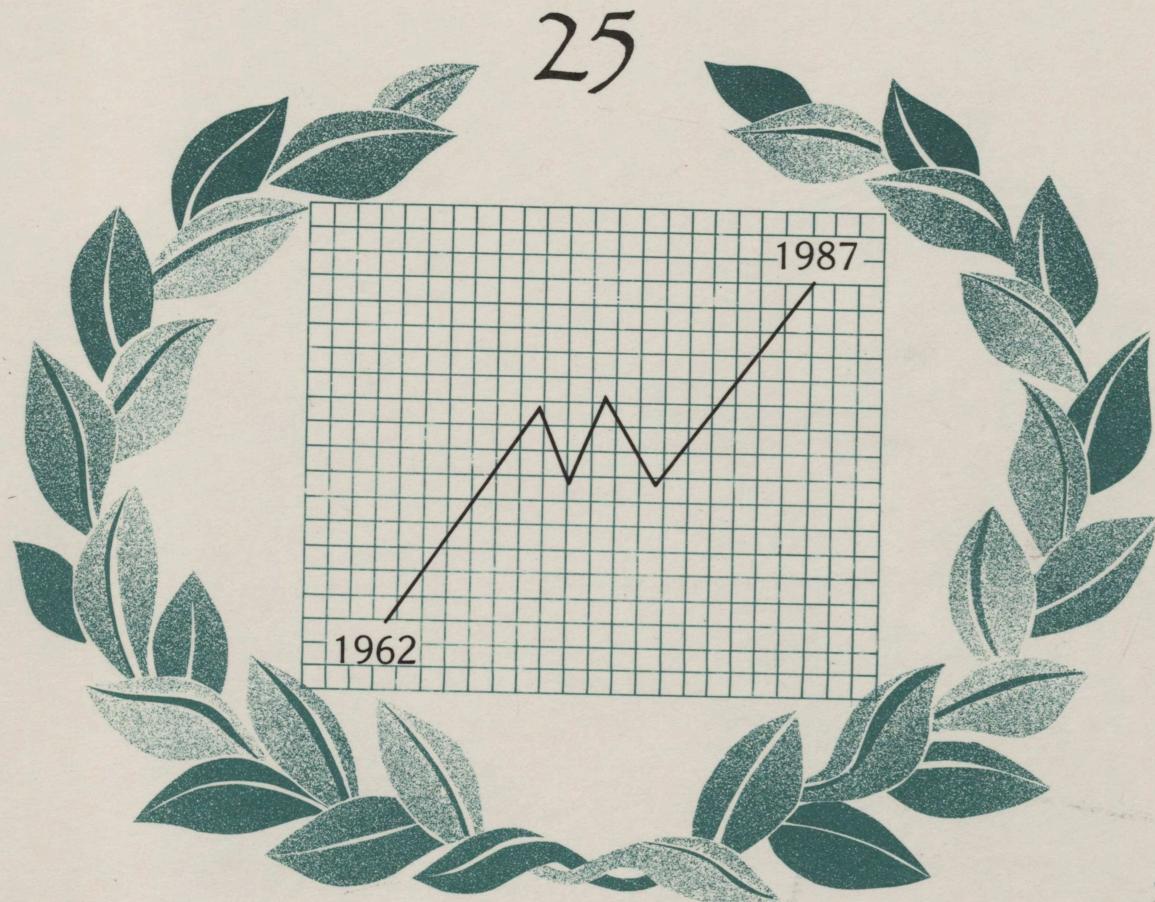
AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

Papers downloaded from AgEcon Search may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

281.8
Ag 835

FOUR-MONTHLY JOURNAL
ON AGRICULTURAL ECONOMICS



Agrekon

Vol. 26 No. 2
JUNE 1987

Price R2,00
(plus GST)

USDA
NAT'L AGRIC. LIBRARY
RECEIVED
APR 18 1988

TAXING AGRICULTURAL LAND*

by W.L. NIEUWOUDT**

ABSTRACT

Desirable features of a tax on agricultural land are that it is not a disincentive to effort, it does not distort resource allocation, it does not increase food prices and evasion is not possible. A land tax on these grounds is superior to an income tax. The tax, however, must be acceptable to the community.

The administration of a land tax is costly as all properties need to be appraised individually and regularly. The rise in expenses and function of government has made such a tax inadequate to finance national government expenditure and land taxes are usually used to finance local government expenditure.

Currently agriculture is heavily subsidised in developed countries which means that tax money is rechannelled into agriculture, after a portion of it is wasted (lost) in the administration of tax and subsidy schemes. More attention needs to be given to eliminating subsidies that do not meet efficiency and equity goals rather than embarking on new forms of taxation. In this context a subsidy on labour qualifies, whereas a subsidy on the purchase of land is an economic waste, as the subsidy becomes capitalised in higher land values.

INTRODUCTION

Taxing land rent was forcefully advocated by Henry George in 1879 in his widely published book *Progress and Poverty*. Many have joined the debate and among the strong opponents of taxing land were Philip Wicksteed, Vilfredo Pareto, Frank Knight, Karl Marx and Frances Edgeworth, whereas among the supporters were Leon Walras, Francois Quesnay, Harold Hotelling and Adam Smith (Gaffney, 1982).

In this paper land tax as an alternative to the present tax system will be studied in relation to agriculture.

RAISE TAXES OR REDUCE EXPENDITURE

Before ways of raising taxes from agriculture are studied, it may be more appropriate to look for ways to cut state expenditure. According to the Directorate of Inland Revenue (1984), tax revenue from South African agriculture and fishing amounted to R124,42 million in 1984 and according to Donovan (1986), expenditure by the Department

of Agricultural Economics and Marketing amounted to R838,4 million during the same year. Consumers also benefit from some of the support given to agriculture. (A more careful analysis of the aid going to agriculture needs to be undertaken. For instance, it may be questioned whether consumers benefit from the subsidy on the distribution margin of maize of R250 million (1986)).

Support accruing to farmers, if the current (1987) drought and other aid of approximately R500 million announced by the State President are also considered, exceeds taxes from agriculture several times. According to Thomson (1984), the farm sector in the USA shelters more non-farm income through tax losses than it generates as taxable profit.

Thirty per cent of South African farmers produce approximately 75% of the gross value of agricultural production. The average gross income of the top 30% of farmers is R414 386 per year (Department of Agricultural Economics and Marketing, 1986). It may be expected that this group of farmers receive about 75% of all state subsidies (interest rate, etc.) as subsidies are generally in direct proportion to scale of operation. It is thus concluded that approximately 75% of state aid such as interest rate subsidies is channelled to farmers with an average gross income of R414 386 per year.

In the USA the view is expressed that the small farmer gains little from state support, whereas the large farmer does not need it (CAST REPORT, 1983). In South Africa interest rate subsidies on the purchase of farm land benefit only farmers who have bonds when subsidies are introduced. Farmers who want to enter agriculture in the future, i.e. younger farmers or farmers who want to expand, would be paying a smaller interest rate on a larger bond and would be no better off, as the subsidised interest is eventually capitalised into higher land values.

The administration cost of a system of subsidies and taxes is generally high and it leads to tax evasion and distorted allocation of resources. It is therefore proposed that reducing subsidies to agriculture is a more fruitful approach than taxing land.

RENTS OF AGRICULTURAL LAND

The rental rate of return for land in South African agriculture is about 5%. The rental rate is defined as cash rents of farm land divided by land value. According to a recent (1986) survey of rents of farm land this figure was estimated as 4,6% (Hattingh, 1986). In Table 1 cash rents of farm land expressed as a value of land are expressed for an earlier period.

*Paper presented to the Agricultural Economic Association of South-West Africa, November 28, 1986

**University of Natal

Article submitted: January 1987

Article received back from author: May 1987

TABLE 1 - Rates of return on farm land, South Africa

	Year of survey	Product	Number of farmers in survey	Rent per hectare (R)	Value of bare land per hectare (R)	Percentage rate of return
Swartland	1977/78	Wheat	17	9,87	268	3,68
Ruens	1978/79	Wheat	16	11,16	236	4,73
Eastern Free State	1979/80	Maize	55	13,32	250	5,33
North-western Free State	1976/77	Maize	47	17,00	347	4,90
Transvaal Highveld	1977/78	Maize	68	15,00	305	4,92
Western Transvaal	1978/79	Maize	25	21,42	392	5,46
North-western Transvaal Bushveld	1978/79	Cattle	22	3,60	87	4,14
Karoo	1978/79	Sheep	18	1,17	31	3,78
South African Agriculture	1978/79	All areas	843	-	-	5,40

Source: Department of Agricultural Economics and Marketing

According to Table 1, the rental rate of return of farm land in the four important maize producing areas varied from 4,90% to 5,46%, showing remarkable stability. Returns on land in wheat, cattle and sheep areas were slightly lower. The ratio between cash rent and land value for the USA was estimated at about 5%, although it varied from state to state (Robison *et al.*, 1985).

Two conclusions that are relevant to taxation can be drawn from Table 1:

- A tax on the value of agricultural land of between 4% and 5% will tax all Ricardian profits away.
- A tax on the value of land is a good substitute for a tax on rents because of the consistency between rents and land values. The rental rate of land may not be known, but values of land could be obtained from representative market sales data.

THEORY OF TAXATION

A tax may be levied on different bases. Tax bases commonly used are income, consumption and wealth. Income taxes provide about 85% of revenues of the Federal Government in the USA. State governments collect about 60% of their incomes from taxes on consumption (taxes on retail sales) and only 2,7% from property taxes. Local governments collect about 86% of their revenue from property taxes (Hyman, 1973).

Taxes can be levied on the 'benefit approach' or the 'ability to pay approach'. Under the benefit approach each individual is taxed according to benefits received from the government, whereas the ability to pay approach taxes the wealthy more.

Taxes can be evaluated on the criteria of efficiency versus equity. A tax may create distortions related to Pareto efficient resource allocation. For example, income taxes might distort economic choices between work and leisure (disincentive to work) while an excise tax (sales tax) reduces

consumption of taxed goods versus untaxed goods and therefore cause misallocation of resources. The economist cannot evaluate taxes on equity, or fairness. Equity is a subjective concept, and the economist's judgements are no better than anybody else's (Hyman, 1973). The economist can, however, generate information on how taxes affect the distribution of income in a community.

The rise in the expense and function of government made the idea of a single tax on land, as the sole source of income, totally inadequate (Boulding, 1982). Land rent is playing a minor (even declining) role in the total economy. According to Hyman (1973), in the USA a single land tax today would scarcely yield enough returns to finance state and local public expenditure, to say nothing about federal expenditure.

ADMINISTRATION

The cost of tax collection should not be excessive in relation to revenue collected. The cost of collection of the federal income tax in the USA is estimated at less than 1% of revenue collected (Hyman, 1973). Administration of a land tax may be costly as each property must be individually assessed. Appraisals have to be undertaken regularly owing to changes in property values over time. Assessing the value of a property that is not often sold in the market is one of the most difficult aspects of property taxation.

If assessment is to be reasonably accurate and fair, the asset value of property should closely approximate the market value. The property tax is levied as a percentage of the assessed valuation.

According to Bird (1974), few countries appear to have effective land taxes of any sort, largely because of weak valuation systems. Bird (1974) further states that a tax that looks ideal on paper may well turn out abysmal in practice. The reason is that the tax in all likelihood would be so poorly administered that it would produce neither equity or efficiency, nor revenue. The principal reasons for this

quality deficiency in the USA are that staff are too small and poorly trained (Bird, 1974).

A land tax should fall on the unimproved portion of land because if improvements are taxed, then the tax is a disincentive to making such improvements. A major problem is the lack of sales data for unimproved rural lands, the difficulty taking into account such 'invisible' improvements as underground drainage, land clearing etc. A New Zealand study proposed that all 'invisible' improvements be exempted. Visible improvements include structures and fences, and invisible improvements embrace all development activities such as clearing, etc. (Bird, 1974). In order to keep administration costs low the tax information scheme must be as simple as possible. Aerial photography or remote sensing is used to classify land into crop land, pasture, forest and waste, each with one to four subclasses by quality. Mass appraisals then involve comparing each parcel of land with the value assigned to an equivalent standard parcel in each class and subclass.

LAND TAX AND PRODUCTIVITY

Major advantages of a land tax are that it is (a) not a disincentive to effort as in the case of an income tax and (b) it does not distort the allocation of resources, as for example a tax on an input or a product, i.e. import duties, petrol taxes, etc. and (c) it does not increase food prices.

While land taxes are not a disincentive to effort, the view that such taxes are an incentive to effort as contended by George (1879) and his followers can be questioned. Henry George advocated that all taxation should be abolished save that upon land values because taxation on land stimulates production while taxation of products checks production (Carter, 1982). If farmers are maximising profits, then it is difficult to see how a tax on land could induce them to be more efficient and increase their profits. This can only be possible if they had not maximised their profits before the tax was introduced. The view is often expressed that a tax on land will encourage production on vacant and underutilised land. The view raises the question of why the land is left idle if it could produce a profit. If the farmer is a profit maximiser, land could be idle because the cost of developing it at that time exceeds expected returns.

The question could also be asked why tax land rents, but not rents that accrue to other production factors, such as special skills, etc.? A tax on rent, whether accruing to land or labour, has the desirable effect that it does not discourage effort. George's answer is "as a man belongs to himself, so his labor when put in concrete form belongs to him".

It may be impossible in practice to exclude all improvements from a tax on land. A portion of the tax will thus fall on improvements and be a disincentive. In developed countries agricultural sectors were the recipients of government subsidies and price supports, while tax write-offs made certain investments attractive. This has partly contributed to

productivity growth and food surpluses in developed countries. In developing countries the agricultural sector is usually heavily taxed (i.e. export taxes) and, according to Schultz (1978), this has contributed to food shortages in these countries. It is imperative that agriculture should not be undervalued. Heavy taxes on profits (rents) in agriculture would remove capital from agriculture that would have been reinvested in this sector.

In Japan agriculture was heavily taxed to finance the modernisation of the economy (Bird, 1974). Land taxes in Japan provided two thirds of total government revenue in the 1870s and amounted to 10-20% of agricultural income. There is a growing sympathy for the view that the extraction of large sums of tax money from agriculture was detrimental to the healthy development of agriculture in Japan (Bird, 1974).

OWNERSHIP OF LAND

In so far as the tax is discounted in the purchase price of land, the tax is no burden to any subsequent owner. Bird, 1974, contends that the decline in land prices will make it possible for tenants or young farmers with low liquid assets to purchase land. In this sense land ownership amongst tenants and young farmers who have management skill but who are short of capital is promoted, according to Bird, (1974: 173).

This view can be criticised. The ratio between rents (pure profits) and the value of land is about 5% (Nieuwoudt, 1980; Pasour, 1975). If the tax is fully capitalised into land values then it implies that land values fall by the same proportion as the fall in profits. If the ratio between land values and after tax profits remain the same, then the farmer without capital (usually a young farmer) is in no better (or worse) position to purchase land. Land is cheaper, but the young farmer needs to purchase more land in order to achieve the same total profit as the profit per ha is lower owing to a high tax. This is tantamount to saying that the young farmer without capital is better off purchasing land in the Karoo as it is cheaper than in the more intensive cropping areas.

The farmer without capital will be better off only if the ratio of profit to land value increases, i.e. if he needs less capital to purchase a farm giving a certain profit. This ratio depends on the real discount rate in the economy. A major problem for farmers without capital is high nominal interest rates arising from high inflation. South African farmers in the 1980s find themselves in this position. A solution to this problem is to reduce inflation. Real interest rates should be stable and positive.

An important effect of a tax on land is its welfare redistribution effect, which falls exclusively on landowners. A tax on land in effect means that the state takes (nationalises) a share of the land. If all profits are taxed away, then it implies that the state has nationalised ownership and that all farmers would be tenants. The only reward a farmer then receives is the return on his managerial skill and the risk he takes (Greenwald, 1973).

A MORE EQUITABLE SOURCE OF REVENUE

The justice and equity of a land tax rests on the creation of land value through the community and not by the individual (George, 1879). The productivity of the community creates the demand for land and its market value. The same community provides the legal and police protection necessary for the enjoyment of property (Lindholm and Lynn, 1982). The land tax "... is the taking by the community for the use of the community, of that value which is created by the community" (George, 1879).

Through land taxes it is easier to reach a broader income base including non-monetary income such as home produced food, imputed value of owner-occupied dwellings, etc. Income from labour ought to be taxed more lightly than income from property, because property income is, dollar for dollar, obtained with less effort than labour income (Bird, 1974). Most taxes discriminate in favour of property, i.e. tax write-offs on interest payments are allowed, but capital gains are not taxed.

A land tax is 'fair' in the sense that it taxes rents (profits) and wealth. Rents are taxed in an indirect way owing to the more or less constant ratio between value per ha and rents per ha. A wealth tax falls more heavily on the wealthy and meets the 'ability to pay requirement'.

Progressive land taxes should not be attempted at local level as it may lead to artificial splitting up of properties to escape the higher tax ranges.

INVESTMENT, EMPLOYMENT AND COMPETITION

According to Harrison (1983), land value taxation changes the share of aggregate income in favour of wages (to boost consumption) and interest (to stimulate investment) and it reduces the tax burden on employees and investors. The disciples of land taxes, following George, advocate a tax on land alone, exempting improvements from tax (Lindholm and Lynn, 1982). By exempting improvements on land from taxation, investment would be promoted.

Income taxes fall on profits created by management, labour, capital and land. By taxing land only (reducing income taxes) and exempting the other imputs from tax, the return to an investment in improvements increases and investment becomes more attractive.

The shift from a tax on effort (income tax) to a tax on land increases the take home pay of labourers. It makes employment more attractive and increases the demand for employment. It increases the return to management (and risk taking) and promotes competition. Consumers should benefit from the economic stimulation in the form of lower prices.

DISCUSSION AND CONCLUSIONS

In developed countries farmers receive aid

through subsidies of inputs and outputs. If producers expect benefits to be of a permanent nature, then the benefits are capitalised into higher land values. According to economic theory all inputs with inelastic supply functions capture rents. The implication is that farm labour benefits little from state support (input and product subsidies) as the supply of unskilled farm labour is elastic. The main beneficiary of state support is the landowners. The effects of these policies are that land prices are artificially higher.

Farmers are profit maximisers and in the allocation of their resources, i.e. labour, land and capital they try to minimise their cost. If labour is more expensive than capital (harvesters) farmers will mechanise and replace labour. Blaming farmers for inadequate living conditions of their labourers may thus be counter-productive. An artificial increase in farm wages through, for example labour union action or minimum wage legislation may lead to more unemployment. In the harvesting process labour can easily be replaced (Fényes and Van Rooyen, 1985).

There is, however, general concern about the quality of life of the Black population (urban and rural) in South Africa. This will be the priority issue in South Africa in future. It is recommended that this problem be tackled by switching subsidies on land towards labour, in the form of rural education, housing, pension schemes, etc. It needs to be determined what assistance labourers themselves want, for instance, do they want better housing or more of something else. This policy is defended on the grounds that if land is subsidised, no more agricultural land will be utilised or created. The beneficiary is the farmer at the time when the subsidy is introduced. Eventually the subsidy increases the price of land and the young farmer who purchases land is no better off because he pays a lower interest rate on a larger bond with higher land values. A subsidy on labour accommodation on the other hand leads to the creation of better facilities for labourers. Both the farmer and his labour share in the benefits of this subsidy.

Current taxes are in the form of income tax (which is a disincentive to effort), inflation (which is a tax on savings) and sales taxes (that are passed on to consumers and producers and distort prices). In this context a property tax is far superior as it is not a disincentive nor reflected in higher consumer prices. Property taxes on unimproved property fall on rents and cannot be passed on to consumers.

In developed countries and also in some developing countries with dualistic structures such as SA, the agricultural sector is a net recipient of state assistance. Most of this assistance goes to large farmers who do not need it. In these countries, land taxes would serve no purpose as the money would be rechannelled back to farmers after a portion of it is lost (wasted) through the administration of the tax. A better strategy would be, rather than taxing land, to reduce all forms of subsidies to agriculture that cannot be justified on welfare redistribution grounds. The beneficiaries of state aid need to be identified, for instance the wealth of the individual, etc.

Taxation of profitable ventures to subsidise unprofitable ventures leads to economic stagnation.

Subsistence agriculture in Africa produces little rent or surplus profit. Population growth in these countries exceeds food production growth. A large proportion of the African population also lives in the rural areas. Food production in this region should be promoted by removing export taxes, devaluing local currencies (if they are over-valued) etc. Land taxes in this region will further impoverish the rural population. These farmers need the surplus (rent) on land to reinvest in agriculture, so as to move out towards the frontier of their production possibility curve.

BIBLIOGRAPHY

BIRD, R.M. (1974). *Taxing agricultural land in developing countries* Harvard University Press

BOULDING, K.E. (1982). A second look at progress and poverty, in Lindholm, R.W. and Lynn, A.D. jr. *Land Value Taxation* The University of Wisconsin Press

CARTER, W.S. (1982). An introduction to Henry George, in Lindholm, R.W. and Lynn, A.D. jr. *Land Value Taxation* The University of Wisconsin Press

CAST. (1983). *Review and policy options* Council for Agricultural Science and Technology, USA

DEPARTMENT OF AGRICULTURAL ECONOMICS AND MARKETING. (1986). Unpublished

DEPARTMENT OF INLAND REVENUE (1984). *Statistical Bulletin No. 3*

DONOVAN, P.A. (1986). Personal communication. S.A. Sugar Association Experiment Station, Mount Edgecombe

FÉNYES, T., and VAN ROOYEN, C.J. (1985). South African agriculture and migrant labor, in Martin, P.L. (Ed.) *Migrant Labor in Agriculture. An International Comparison* University of California Press

GAFFNEY, M. (1982). Two centuries of economic thought on taxation of land rents, in Lidholm, R.W., and Lynn, A.D. jr. *Land Value Taxation* The University of Wisconsin Press

GEORGE, HENRY. (1879). *Progress and Poverty* New York: Appleton

GREENWALD, D. (1973). *Dictionary of Modern Economics* McGraw-Hill

HARRISON, F. (1983). *The Power in the Land* Shepheard-Walwyn Pub. Co.

HATTINGH, H.S. (1986). Personal communication. Department of Agricultural Economics and Marketing

HYMAN, D.N. (1973). *The Economics of Governmental Activity* Holt, Rinehart and Winston

LINDHOLM, R.W., and LYNN A.D., jr. (1982). (Ed.) *Land Value Taxation* The University of Wisconsin Press

NIEUWoudt, W.L. (1980). Value and rent of farm land *South African Journal of Economy* 48(4): 389-397

PASOUR, E.C. jr. (1975). The capitalization of real property taxes levied on farm real estate *Amer. J. Agric. Econ.* 57: 539-548

ROBISON, L.J., LINS, D.A. and VENKATARMAN, R. (1985). Cash rents and land values in U.S. agriculture *Amer. J. Agric. Econ.* 67(4): 794-805

SCHULTZ, T.W. (1978). *Distortions of Agricultural Incentives* Indiana University Press

THOMSON, R.L. U.S. (1984). Public policies and institutions in an unstable world *Amer. J. Agric. Econ.* 66: 592-595