

An Arithmetical Approach to the Georgist Philosophy

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In working through this arithmetical exercise, I have used no more mathematics than can be understood by one who has completed the eighth grade and so has never gone beyond arithmetic. I have used the arithmetic in the exercise to illustrate and make more meaningful certain demonstrable economic principles, viz:

(1) A high tax on the annual rental value even though considerably short of 100 percent, will and does put pressure on owners of land to get their land used; and it tends, by thus increasing the available supply of good land, to reduce land rent. The point so often stressed by Georgists that a land-value tax cannot be "shifted" and that, therefore, it does not raise rent is only a defense where we should make a smashing attack. **Don't tell people that a land-value tax won't make rent higher. Tell them that it will and must make rent lower.**

(2) The same forcing of good land into use which pushes rent down, pushes wages up. This is not to say that wages are higher because rent is lower. Wages are higher because labor is better supplied with good land and therefore is more productive and employers are able and willing to bid higher for it.

(3) Capital will also be more productive when it is better supplied with land. But even if it were not, then is still a greater percent return to the owners of capital, since capital can be relieved of tax when more of the rent of land taken by taxation instead.

(4) The higher percent yield to owners of capital, now untaxed (as well as somewhat more productive), will mean a higher percent return on the saving and investing of those who, by thus saving and investing, bring more capital into existence. This follows from the theory of interest on capital, as that theory was illustrated by the arithmetical exercise on capital and interest, which I presented at the Berea, Ohio, conference two years ago. Here I repeat the conclusion without again going through the reasoning.

(5) The higher percent return thus available as incentive must mean more capital in the state or community, because:

(a) This larger percent gain is likely to operate as a considerable incentive to saving and investing; and

(b) The savings made by citizens of neighboring states and communities will now be invested in greater degree in the state or community which taxes land more and improvements less.

(6) Because there is now more capital in the land-value tax state or community, workers are better equipped with machinery and other capital as well as better provided with land. Thereby these wage earners are able to produce more, are worth more to employers and are able to earn higher wages. This, along with what was stated above under point 2, is drawn from the explanation of how wages are determined, as I presented this at Bryn Mawr last year.

(7) It is true, of course, that as capital flows from one state or community to another, there is a tendency for percent returns in the different states or communities to approach equality; but the state or community which taxes land more and capital less or not at all, will have more capital.

(8) The sale value of land will be lower, if land is taxed more heavily and if capital is untaxed, for three reasons:

(a) Competition of owners to get their land used will, as we have seen, reduce the rent which owners can charge tenants.

(b) Taxation will take so large a percent of the reduced rent, that the net rent (after subtraction of the tax) will be still further reduced, perhaps to a very small net return.

(c) The net percent yield on capital will for some time be higher and this means that the interest rate used in capitalizing the net rent from land into a sale value is a higher percent, thus bringing a lower sales value after the arithmetical calculation is made than if the percent interest were not so high.

(9) It is easier for a tenant who wishes to do so, to obtain title to the land he wants to use for production or to live on, because:

(a) The price he must pay is much lower.

(b) He can save more easily and faster, since his wages are higher and what he saves can be invested at a higher yield, thus further increasing his ability to save.

(10) If he does have to borrow in order to become an owner quickly, the amount he must borrow will be much less and paying it off will be far easier.

In conclusion, I might call attention to the fact that my discussion tonight is really part III of a trilogy of arithmetical exercises and their explanation, which deal with interest on capital, wages of labor and rent of land, respectively, and in which this, the third, refers back to and draws from the preceding two.

ARITHMETICAL EXERCISE

[1] In the country of Lemuria, the marginal rate of productivity of capital in the various industries averages 6 percent. There is a general tax on all property of 2 percent ($2/6$ of the income from it). There are also special taxes on cigars, cigarettes, soft drinks and moving pictures, as well as other indirect taxes. Stafford owns a building and lot from which he receives (in excess of annual repairs and depreciation on the building) \$1,476 a year. The cost of construction of such a building (his being now) is \$16,500 and \$990 of Stafford's \$1,476 property income is interest on capital (building). The remaining \$486 is properly to be regarded as RENT on the lot.

(a) What are the taxes on building and lot respectively? (\$330 on building, \$162 on lot)

(b) What then. is the net interest? (\$660)

(c) What is the net rent from the lot? (\$324)

(d) Assuming a general belief that the rent of the lot and the tax rate will remain the same. WHAT DO YOU FIND FOR THE SALE PRICE OF THE LOT? (\$8,100)

(2) In the country of **Shangri-La**, most of the revenue required is secured by a tax on land values. Shangri-La has none of the indirect taxes levied in Lemuria and no tax on capital.

In Shangri-La, as in Lemuria, the marginal productivity of capital in the various industries averages 6 percent. Compton owns a building and lot in Shangri-La. His building is the twin of Stafford's and its cost of construction, too, is \$16,500. His lot is equally good as regards location. The total income from his building and lot is \$1,452, of which \$990 is really INTEREST on Compton's capital investment in his building and \$462 is properly to be regarded as BENT on the lot.

(a) Explain why this rent is assumed to be lower than the rent of the lot of similar location advantages in Lemuria.

(b) Would WAGES, then, be any higher in Shangri-La? EXPLAIN in the LIGHT of that you know about HOW wages are determined.

(c) Assuming the land-value tax rate in Shangri-La to be $10/11$ of the annual rental value of land, there would be a tax on Compton's lot of HOW MUCH. (\$420)

(d) There is, however, NO tax on his building. WHAT IS COMPTON'S NET RENT FROM HIS LOT? (\$42)

(e) What do you find for the sale price of the LOT? (\$700)