

Land-Value Taxation
and
Contemporary Economic Thought

EDITED BY
ARTHUR P. BECKER

[VOLUME I — NUMBER I]

BOULDER CONFERENCE COMMITTEE
Milwaukee

All correspondence or inquiries may be sent to:
Professor Arthur P. Becker
Department of Economics
University of Wisconsin — Milwaukee
Milwaukee, Wisconsin 53211

© 1964 ARTHUR P. BECKER

MADE IN THE UNITED STATES OF AMERICA

FOREWORD

The taxation of land values has played an important role in the tax structures of state and local governments of the United States. This role has not been given the prominence it deserves because the taxation of land values in the United States is submerged in the general property tax. Many writers of the eighteenth and nineteenth centuries saw special merit in the taxation of land values (usually measured on an annual basis as economic rent). However, writers of the twentieth century have failed to carry on this tradition. One wonders whether special merit in the taxation of land values has disappeared or whether the subject is simply being ignored.

This volume constitutes a modest attempt to resume the dialogue on land-value taxation. It includes studies relating the concept of land-value taxation to micro- and macro-economic theory. It also relates land-value taxation to the problem of monopoly power in the United States. It concludes with a reexamination of the ethical question inherent in the taxation of land values.

The papers which make up this volume were developed out of a conference on "Land-Value Taxation and Contemporary Economic Problems" at the University of Colorado, Boulder, Colorado, in August, 1961. The purpose of the conference was to provide an opportunity for a group of academicians, primarily economists, to examine the idea of land-value taxation in connection with various economic problems of the 1960's.

The conference was initially planned by a small group of academicians (the Boulder Conference Committee) interested in seeing the resumption of intellectual activity and the production of literature with respect to the taxation of land values, after a lapse of almost half a century. The financial sponsor of the conference was the Robert Schalkenbach Foundation. The Conference Committee, however, exer-

cised complete independence and freedom in arranging for the conference as well as in preparing this volume.

The conference revealed that "land-value taxation" is an elusive concept. Its basic meaning is not really known and understood by many economists. Moreover, even land-value taxation, correctly defined, may have many forms and a variety of effects—all of which helped to corroborate the view that renewed thinking and writing in the field are sorely needed among economists.

I wish to acknowledge the valuable assistance of Weld Carter in planning and making arrangements for the conference and in the publication of this volume. In addition, Miss Violetta Peterson, Executive Secretary of the Robert Schalkenbach Foundation, was most helpful in many ways concerning both projects. Lastly, special thanks must be given to Mr. Albert Pleydell, President of the Robert Schalkenbach Foundation, for his encouraging support in materializing the conference and this publication.

The views expressed in this volume are those of the authors and do not reflect the views of the other participants in the Conference, or the Boulder Conference Committee, or the staff members, officers, members, or directors of the Robert Schalkenbach Foundation.

ARTHUR P. BECKER, CHAIRMAN
Boulder Conference Committee

CONTENTS

Foreword	3
I. A CRITICAL EVALUATION OF LAND-VALUE TAX THEORY AND ITS RELATIONSHIP TO PRICE AND DISTRIBUTION THEORY .	7
Ervin K. Zingler, Ph.D., Professor of Economics, University of Houston	
II. LAND-VALUE TAXATION AND THE THEORIES OF LAND RENT AND VALUES OF SILVIO GESELL AND FRANZ OPPENHEIMER .	20
Ludwig H. Mai, Ph.D., Dean of the Graduate School, St. Mary's University, San Antonio, Texas	
III. LAND-VALUE TAX THEORY AND ITS RELATION TO MACRO-ECONOMIC ANALYSIS	26
William H. Anderson, Ph.D., Professor of Economics, University of Southern California	
IV. LAND-VALUE TAXATION AND MONOPOLY POWER	36
Horace M. Gray, Ph.D., Professor of Economics, University of Illinois	
V. THE ETHICS OF LAND-VALUE TAXATION	44
Louis Wasserman, Ph.D., Professor of Philosophy and Government, San Francisco State College	

CHAPTER I

A CRITICAL EVALUATION OF LAND-VALUE TAX THEORY AND ITS RELATIONSHIP TO PRICE AND DISTRIBUTION THEORY

BY ERVIN K. ZINGLER

I. Introduction

1. *Land-Value Tax Theory Is Based on Ricardian Economics*¹

Basic is an assumption of an historical tendency to diminishing returns. The pressure of rising population forces cultivation of inferior lands, and differential rents arise on superior lands. Thus rent is a transfer item, not a factor cost. It is an unearned surplus appropriated by the landlord through the exercise of monopoly power. Land characterized by the original and indestructible powers of the soil is a gift of nature. A secular rise in wages, caused by rising food prices, would result in an increase in rents both absolutely and relatively to other factor shares, the ultimate disappearance of profits, and an end to capital formulation and economic growth. Therefore, the interest of the landlord is always opposed to that of every other economic class. Economic rent is pure surplus, price-determined and not price-determining. Therefore a tax on economic rent could not be shifted to any other factor class. The landlord could not take adverse action since land is fixed in supply with no reservation price.

¹ See Henry George, *Progress and Poverty* (New York: Robert Schalkenbach Foundation, 1958); *The Land Question* (New York: Robert Schalkenbach Foundation, 1953); and *The Science of Political Economy* (New York: Robert Schalkenbach Foundation, 1958).

Inasmuch as rent is an unearned increment, the tax is fully justified.

2. *Task Is to Appraise Land-Value Tax Theory in the Light of Modern Economic Theory*

II. Brief Statement of Relevant Modern Price and Distribution Theory

All factors of production can be reduced basically to two: labor and capital. Their prices, wages, and interest are determined simultaneously along with all other micro- and macro-economic items, such as end-product prices, costs, national income, general price levels and distribution of national income. All are mutually interrelated in a causal sense. Marginal productivity, along with bargaining strength and a host of other institutional considerations in a given context of national income and general price levels and in a world of imperfect competition, determines wage and interest rates and functional distribution of income via supply-and-demand interaction.

Economic rent is a matter of elasticity of supply of a factor² and can occur on any factor of production which is inelastic in supply in either the short or long run. If a factor is perfectly inelastic in supply, all of its price is in the nature of an economic rent. That rent will be completely price-determined and will not enter as a cost of production because the factor will have no minimum reservation or transfer price or cost. If a factor is perfectly elastic, none of its price is in the nature of an economic rent. All of it will be a cost of production and will be price-determining. If a factor is neither perfectly inelastic nor perfectly elastic, some of its price will be in the nature of a price-determined surplus or economic rent, and some of it will be a cost of production item in the price-determining sense. Thus wages and interest can contain rentlike returns, just as fixed capital receives a quasi-rent, and land receives rent. A tax on any pure surplus cannot be shifted.

Land is a special kind of capital good, and *land values are both privately and socially created*. Much of the so-called economic rent on land is really interest on man-made improvements in and on land, apart from any buildings or the like. This is especially true in the case of agricultural lands.

² Kenneth Boulding, *Economic Analysis*, 3 ed. (New York: Harper, 1955), pp. 211-4, 724-5, 819-26. Also "The Concept of Economic Surplus," *American Economic Review*, December, 1945.

The entrepreneur and profit constitute the weakest part of modern distribution theory. Basically, many economists, like Milton Friedman³ and others, going back to Edwin Cannan,⁴ deemphasize functional distribution of income. Among contemporary economists who have tackled distribution theory head on with respect to profit theory, Sidney Weintraub⁵ and J. Fred Weston⁶ have rejected the functional theory of profits and have replaced it with a "contractual" theory. According to this theory — based on Weintraub — the entrepreneur, who is very difficult to identify in the modern corporation because the functions are split up and delegated widely, contracts for labor, capital, and land at fixed rates, which binds all other factor groups to him in his task of organizing and directing productive agents. The rigidity of this payments sequence in the face of continuous economic change permits the appearance of profits as a residual item. The entrepreneur requires this fixed contractual arrangement to cope with the uncertainties of economic change, and diversity of forecasts and risk aversion make possible these contractual modes of hire. Once contracts appear in an economy, a profit trail is virtually inevitable. Any change in economic conditions from the expectations on which the contracts were based will establish some deviation between imputed values and contractual earnings which is profit (or loss).

Hard bargaining, limited monopolistic and monopsonistic powers, innovations, and superior insight into the future will insure the constancy of these profits over time. In a world of perfect competition the entrepreneurial function and profit will disappear; but in a dynamic world of imperfect competition the function is both necessary and omnipresent. The profits represent the unexpected surpluses ascribable to unforeseen demand and cost changes which contradict the premises upon which the contractual agreements were based. Some economists⁷ argue that the unexpected and foreseen entrepreneurial profits are really entrepreneurial rents and are the motivating forces in the

³ See *The Impact of the Union* (New York: Harcourt, Brace, 1951), edited by D. M. Wright, pp. 306, 352-3.

⁴ Edwin Cannan, *A Review of Economic Theory* (London: King, 1930), p. 301.

⁵ Sidney Weintraub, *An Approach to the Theory of Income Distribution* (Philadelphia: Chilton, 1958), Chap. 10, pp. 189-207.

⁶ J. Fred Weston, "The Profit Concept and Theory: A Reinstatement," *Journal of Political Economy*, April, 1954.

⁷ J. S. Keiper, E. Kurnow, C. D. Clark, and H. H. Segal, *Theory and Measurement of Rent* (Philadelphia: Chilton, 1961), p. 115.

organization of production, whereas the unexpected and unforeseen profits or surpluses are "pure" nonfunctional windfalls.

For rent's share of national income to rise relative to that of interest and wages, both diminishing returns (MPP of labor and capital on land begins to decline) must occur and the elasticity of productivity ($E_P = MPP_{LO}/APP_{LO}$) must be less than 1 or inelastic (APP_{LO} greater than MPP_{LO}).⁸ Diminishing returns is not enough because within a short range MPP_{LO} can be greater than or equal to APP_{LO} and therefore E_P will be greater than or equal to unity.

III. Evaluation of the Theoretical Basis of Land-Value Taxation in the Light of Modern Theory

1. General Considerations

The English Classical School concentrated their economic rent analysis almost entirely on agricultural land to the great neglect of urban land, whereas the land-value tax theory is more applicable to urban land than to rural or agricultural land. Similarly, the deficiencies of the Ricardian rent theory in terms of the land-value tax theory are greater in the case of agricultural land than in the case of urban land. A discussion of some of the general items is given below.

While land may be a gift of nature, much of current land values are the result of man's efforts. Ordinarily, raw land does not have very much economic potential until considerable labor and capital have been expended on it. For agricultural purposes, it has to be cleared of rocks and trees, sod has to be broken, the land has to be fenced, often drainage or supplemental water has to be provided, and access roads have to be constructed. For urban purposes, the land has to be leveled and filled, and the developer has the expense of platting and subdividing, landscaping, and bringing in access roads and utilities. Thus much of the economic rent on such land is partly a true economic surplus on "site" value and partly an imputed interest on capital improvements. A tax on this interest can be shifted.

Land does not possess original and indestructible powers of the soil. Fertility can be destroyed by overcropping or overgrazing, and wind and water erosion can do much damage to the soil. In computing true economic rent on such land, annual "user" costs must be deducted as

⁸ Paul Davidson, *Theories of Aggregate Income Distribution* (New Brunswick, N. J.: Rutgers University Press, 1960), pp. 8-11.

a legitimate economic cost of production in terms of maintaining fertility and preventing erosion. In the case of urban lands, retaining walls are frequently necessary to prevent slippage and landslides. The latter costs, however, are fixed, not "user" costs; although "user" costs, too, can arise on urban lands.

Land is not perfectly inelastic in supply. The idea that it is, is based on a "static" concept of resources. *Resources properly are a function of technology and scientific know-how* (see Erich W. Zimmerman, *World Resources and Industries*, rev. ed. [New York: Harper, 1951], p. 7). *They are dynamic in nature.* According to this concept, land is not perfectly inelastic in supply, certainly not in the sense of productive capacity in agriculture or the ability to support skyscrapers, which really is the important aspect of land, and not even from the site or acreage viewpoint. While land acreage in the quantity sense is inelastic in supply, the supply of land in the absolute can be increased by drainage, terracing, irrigation and other measures, such as filling and dredging up land from submerged areas. The latter is particularly important in urban areas. *The cost of reclaiming or building this land is a true capital cost and its return is interest and not an economic rent.* Man-land ratios are important only in underdeveloped economies. In developed nations, what is important is the ratio of population to total resources of all kinds and types and to technological development.

A tax on true economic rent after due allowance for all imputed wages and interest cannot be shifted but would have to be borne by the landlord. Basically, this would be the "site" rental value of land. Any tax on the imputed wages and interest involved in landownership and utilization, including "user" cost of maintaining fertility and/or site value even under the disguise of a tax on economic rent or surplus, would be shifted. Whether it would be shifted forward to the consumer in the form of higher prices or backward to tenant farmers, farm laborers, and suppliers of feed, seed, and agricultural equipment and livestock in the case of agriculture, or to labor and capital in the case of urban land, would depend upon many complex factors.

One would have to consider the competitive setting, the stage of the business cycle, both foreign and domestic trade and competition, both inter- and intra-sectoral shifts, whether production is taking place under conditions of diminishing or constant or increasing returns, what the government does with the tax receipts, etc. A "general" rather than a "partial" equilibrium approach would have to be utilized, "dynamic"

rather than "static" conditions and "imperfect" rather than, "perfect" competition would have to be assumed, and a combined "micro-macro" treatment would be necessary.

It might be argued that *true economic rent on the annual "site" value of land*, as opposed to the return on any capital improvements in and on the soil and to prevent erosion, is an *unearned increment* in the sense that it is the *result of social or natural*, not personal, forces. But the same thing could be said of "windfall" profits resulting from a "seller's" market. Also, there are lots of other unearned increments, such as monopoly business profits and a monopoly element often in wages and interest, not to mention the rentlike returns in wages and interest under competitive circumstances.

Too, is the landlord any more of a monopolist for holding a scarce resource — land — than any other holder of a scarce resource, say labor, money capital, real capital, or entrepreneurial ability? Or what about the person or company that holds scarce raw materials and/or end products? In this light, either the landlord is in good company among fellow monopolists or else his monopoly powers are so modest in relation to those of the others that he loses his status as a monopolist. In any case, it is difficult to hold him up as the only villain in the economic world.

In a dynamic world of imperfect competition and partial monopolies, it is impossible to prove either theoretically or empirically that the interests of the landlord are more opposed to those of the other economic classes than the interests of any other economic class are opposed to those of the remaining classes. In a dynamic situation there is more for everybody. Yet each economic class fights as hard as it can to get its due and just share, however illogically or irrationally each may define its own share. There is very little, if any, real justification for singling out the landlord for special attention and special treatment.

2. *Micro-Economic Evaluation*

The modern marginal productivity theory of distribution and factor prices yields the very same conclusions concerning rent that the differential rent theory does. The amount of the rent is the same, calculated either way. Both theories involve productivity and diminishing returns. Land without any productivity is no-rent land. And land with productivity is rent land. There can be and frequently is both an intensive and an extensive margin of cultivation or land use, and in either case

land is utilized until its net marginal productivity falls to zero. In the case of the intensive margin, this may require numerous applications of labor and capital. In the case of truly marginal land, even the first application of labor and capital yields no net economic rent but only produces a yield sufficient to pay for the labor and capital costs involved.

If any imputed interest on capital improvements in or on the land and annual "user" costs to maintain the fertility of the soil and to prevent erosion apart from any "site" rental value are included in the economic rent figure, then all lands under use will produce some marginal productivity and will not be strictly no-rent lands. In this sense, all lands in use must be supermarginal lands, and the net productivity or economic rent on these lands at the margin of cultivation is a true economic cost of production in the price-determining sense. The only no-rent land then would be idle lands with zero "site" rental value. These would be strictly marginal or no-rent lands and their marginal productivity would be zero. No one would pay to utilize such land, nor would one utilize it for free.

On the other hand, differences in land fertility and/or location are not necessary to explain economic rent. Under both the marginal productivity and the differential rent theories, *what is required is the presence of diminishing returns.* Even if all lands were of equal fertility and location, diminishing returns alone could explain economic rent.

Again, as to whether this rent is an unearned or earned increment, whether it is price-determining or price-determined, and whether it is an economic cost of production or a pure surplus would depend upon how economic rent is defined and measured. If it is limited to pure "site" annual rental with full deduction for annual "user" costs and for imputed interest on capital improvements in and on the soil, it could be considered properly as an unearned increment, a pure surplus, and something which is price-determined and not an economic cost of production. In this case, marginal or no-rent land would have zero marginal productivity. However, any "user" costs or imputed interest on capital improvements in and on the soil included in economic rent on either the intensive or extensive margins of cultivation would be a true economic cost of production; it would be price-determining, it would not be an unearned increment, and it would not be a true surplus.

A tax on pure economic rent or "site" rent cannot be shifted because it is a pure surplus, and it is price-determined, not price-determining. Hence, the price vehicle for shifting taxes will not work. However, a

tax on gross economic rent which includes in addition to "site" rent an imputed rent on capital improvements made in and on the soil and which includes an annual "user" cost to maintain the soil (fertility and nonerosion), not to mention an imputed interest on the owner's capital improvements in buildings and equipment and an imputed wages of management, most assuredly *can be shifted* in either a competitive or monopolistic situation.

It is very difficult to determine a priori whether the shift will be forward to the consumer in higher end-product and service prices *or backward* to farm tenants, farm laborers, feed, seed, fertilizer, and farm implement dealers, etc. In the case of forward shifting, it depends partly on what the government does with tax proceeds. If spent on improving farm technology, it may well lower the cost of producing farm products and the price of consumer goods to the point where the cost of living may well decline or remain constant, rather than rise. Also, foreign competition may prevent much of the tax from being shifted forward to consumer goods. Whether the tax will be shifted intersectorally, say to industry, etc., or intrasectorally, landlord versus farm laborers, etc., will depend upon many complex factors outside the scope of this paper.

However, it definitely can be stated that it will be shifted in the long run. In the short run, perhaps not. It will be shifted in the same manner as many other taxes on any other capital investment, whether in or on the soil or in the form of buildings or betterments. The subsequent effects on wage and interest rates at best are problematical. Very little can be said in a general equilibrium setting.

Ricardo could say much about the subject because he was assuming perfect competition under static conditions, he was talking about the long, long run or secular trend period, and he was using a partial equilibrium approach. He assumed fixed technical coefficients of production with no factor substitution possible. The interesting and realistic problems of today were all assumed away. Presumably, wage rates in time will rise as the cost of living rises, but this will have little effect on interest rates especially in view of labor-saving and raw-material-saving technical innovations and especially in view of central bank policy.

A tax on the true economic or "site" rental value cannot be shifted if the landlord is presently charging the "*rack*" or *maximum rental value* which the land is worth. If, because of market imperfections,

for one of many possible reasons, the landlord is not charging the "rack" rental, the tax may furnish the occasion to raise the rent to the "rack" rental figure. This could have been done anyhow regardless of the tax. The same thing applies in the case of an owner-operator. Here the economic rental is an "imputed" rather than a "contractual" rent, but the principal is the same. However, if the land is utilized at less than its maximum economic potential, the tax may very well force the owner-operator to put the land to its optimum use. This, of course, he could have done anyhow.

3. *Macro-Economic Evaluation*

As mentioned before, all factors of production can be reduced basically to two: labor and capital. The entrepreneur and land or natural resources can easily be subsumed under these two. Their prices or rates, wages, and interest are determined simultaneously along with all other micro- and macro-economic items such as end-product prices, costs, national income, general and relative price levels, interest rates and distribution of national income. All are mutually interrelated in a causal sense. Marginal productivity, along with bargaining strength and a host of other institutional considerations in a given context of national income and general price levels and in a dynamic world of imperfect competition, determines both wages and interest and functional distribution of income via supply-and-demand interaction.

Land essentially is a special kind of capital, and its return economic rent is made up partly of a pure surplus, based on annual "site" rental value, an unearned increment contributed by nature and resulting from population growth and increasing man-land ratios, and partly of imputed interest on capital investments made in and on the soil apart from buildings and betterments. Also, if the economic rent is not defined solely as annual "site" rental value, it is likely to include not only imputed interest but also annual "user" costs to maintain the fertility of the soil and to prevent erosion. It is believed that true economic or "site" rent constitutes only a rather small part of gross or conventionally defined economic rent.

There are *two conditions under which economic rent as conventionally defined (pure surplus) would increase historically over time both relatively and absolutely* in comparison with that portion of national income going to wages and interest, and therefore furnish a basis in fact that the interests of the landlord are opposed to those of labor

and capital, indeed all other economic groups or factors.⁹ The *first condition* is that *long-run diminishing returns to scale* (not only short-run diminishing returns) must occur in agriculture and in all other instances where labor and capital are applied to a fixed land area. The *second condition* is that the *elasticity of production*, $E_P = MPP_{LO}/APP_{LO}$, must be *inelastic* or less than 1. In other words, E_P must be less than unity, or the average physical productivity of labor and capital on a fixed amount of land must be greater than the marginal physical productivity of labor and capital on the same land.

Diminishing returns alone is not enough. This troubled Ricardo and he concluded that it is not always certain that the landlord's relative share of national income will always increase at the expense of labor's and profit's share.¹⁰ He was correct. The real determinant lies in the elasticity of productivity. Within a narrow range, it is possible for elasticity of productivity to be either greater than or equal to unity under conditions of diminishing returns. Rent's relative share of national income will rise only at the expense of labor's and profit's share (to use Ricardo's terms) when historically diminishing returns have progressed to the point where APP_{LO} is greater than MPP_{LO} and the elasticity of productivity or E_P is less than 1.

On the first point, long-run diminishing returns, which is the necessary but not sufficient condition for a conflict in interest between the landlord and other functional groups, there is no clear-cut historical evidence that diminishing returns to scale has ever occurred within the continental United States. On the contrary, Paul Douglas' monumental study, *The Theory of Wages* (New York: Macmillan, 1934), has demonstrated with reasonable validity that since the Civil War the United States of America has operated under conditions of constant long-run returns to scale. Under these conditions the landlord's share of national income could never increase relative to that of other functional groups under any free-enterprise system that was even partly

⁹ The real conflict is between wages and profit, not rent and profit. Assuming constant real wage rates and given technology, the relative wage share of the total national product increases with rising levels of employment because of diminishing returns. The profit share declines as the wage share rises. Rent's share remains constant or increases, depending upon whether $E_P = 1$ or $E_P < 1$. It can never decrease with a normal production function because E_P cannot be greater than 1 with rising levels of employment in the region of rational factor hire. However, within a relevant range, it could remain constant.

¹⁰ Piero Sraffa, *Works and Correspondence of David Ricardo* (Cambridge: Cambridge University Press, 1959), Vol. II, pp. 196-7, fn. 1, and pp. 198-9, fn. 2.

competitive. Also, the ineffectiveness of the Department of Agriculture's crop-control programs refutes the idea of long-run diminishing returns in agriculture.

Other empirical studies have demonstrated that the landlord's relative share of national income has been falling rather than rising, and indeed is not a very significant share (less than 10 percent of national income, not GNP) at the present time. Keiper, Kurnow, Clark, and Segal in their recent book, *Theory and Measurement of Rent* (Philadelphia: Chilton, 1961),¹¹ estimate upon the basis of the 1957 Census of Governments, the latest such census available, that land rent in 1956 varied between a minimum of \$11.6 billion and a maximum of \$36.5 billion, depending upon which of three methods of estimating land rent is accepted. Land rent was computed by assuming three different rates of return on the capital value of the land for 1956, or \$323 billion; namely, 3.6, 6.0, and 11.3 percent per year. This compares with the Department of Commerce estimate for the same year of \$10.9 billion, which, however, is obviously low. The Department of Commerce, it should be noted, does not attempt to estimate functional distribution of income in the classical sense. Even the high estimate of \$36.5 billion is only 10.4 percent of national income for 1956. The low estimate is 3.3 percent. Land rent as a percent of national income has been falling since 1910, according to the above study.

IV. Conclusion

In contemporary economic theory, economic rent is no longer identified exclusively with land rent, but can and does occur on all factors of production. Taxation of economic rent in all cases other than perfect inelasticity of supply of the factor concerned would be partially shifted with adverse effects on the allocation of economic resources. The same would be true of a tax on land rent if it applies to anything more than pure "site" rental value. Any tax on imputed gross economic rent to cover the capital investments in and on the soil and to cover annual "user" costs would be in time fully shifted with serious effects on efficient factor resource allocation.

The unfortunate but inescapable conclusion is that much of the land-value tax theory rests upon an erroneous and outmoded economic theory. The "single tax" theory is even more questionable. There are many pure surpluses and unearned increments scattered throughout

¹¹ Pp. 99-101.

all factor returns, and to single out any particular one for special taxation is hardly warranted. All should be taxed equally in the light of modern tax theory. The difficulty is that it is virtually impossible to segregate these windfall and monopoly returns from the necessary factor returns. In the case of a single tax on economic rent, obviously it would be far inadequate to finance the present operations of our government, not to mention the unfairness in exempting other income and groups from taxation.

Nevertheless, from the "economic policy" viewpoint, many of the conclusions of the modern land-value tax theory remain essentially correct and realistic today. For example, the idea of placing a penalty tax on idle land or land used obviously below its true economic potential, particularly in crowded and congested metropolitan areas, makes a lot of good economic sense. If lands can be kept idle or underutilized because of faulty land-assessment procedures or unrealistically low taxes so that the owners can create an artificial scarcity of land and hold them for huge speculative profits subject only to capital gains taxation, society suffers. Either a penalty tax or a tax based upon maximum imputed economic rent in terms of land's highest economic utilization, rather than based on nominal rentals or taxed as underdeveloped land at low assessment figures, would force this idle or underutilized land into productive or more productive use. Thereby society would gain, a more economically efficient utilization of economic resources would be achieved, and taxes would be more in accordance with ability to pay and equality of sacrifice concepts. A practical administrative problem of determining the maximum imputed annual rental value of land in its highest level of economic utilization remains, but it is not an insurmountable problem.

Also, the implications of land-value taxation reform in terms of accelerating growth in underdeveloped nations of the world are enormous.¹² This topic, however, is a subject for a separate paper and outside the scope of this one.

The big job that needs to be done is to reevaluate the economic policy conclusions and recommendations of land-value tax theory in terms of both modern positive and normative, or welfare, economics. It may well be that most of them are essentially correct today when viewed in the light of modern acceptable economic theory.

¹² See Haskell P. Wald, *Taxation of Agricultural Land in Underdeveloped Economies: A Survey and Guide to Policy* (Cambridge: Harvard University Press, 1959).

Brief Bibliography

- Boulding, Kenneth. *Economic Analyses*. New York: Harper, 1955, 3 ed.
- Brown, H. G., Bottenheim, H. S., Cornick, P. H., and Hoover, G. E. (eds.). *Land-Value Taxation Around the World*. New York: Robert Schalkenbach Foundation, 1955.
- Davidson, Paul. *Theories of Aggregate Income Distribution*. New Brunswick, N. J.: Rutgers University Press, 1960.
- George, Henry. *The Land Question*. New York: Robert Schalkenbach Foundation, 1953.
- . *Progress and Poverty: An Inquiry into the Causes of Industrial Depressions and of Increase of Want with Increase of Wealth*. New York: Robert Schalkenbach Foundation, 1958.
- . *The Science of Political Economy*. New York: Robert Schalkenbach Foundation, 1958.
- Keiper, J. S., Kurnow, E., Clark, C. D., and Segal, H. H., *Theory and Measurement of Rent*. Philadelphia: Chilton Company, 1961.
- Morton, Walter A. *Housing Taxation*. Madison: University of Wisconsin Press, 1955.
- Robinson, Joan. *The Accumulation of Capital*. London: Macmillan, 1956.
- Schwarz, Eli, and Wert, James E., *An Analysis of the Potential Effects of a Movement Toward a Land Value Based Property Tax*. Pittsfield, Mass: The Ben Franklin Press, Inc., 1958.
- Sraffa, Piero. *Works and Correspondence of David Ricardo*, Vols. I-X. Cambridge: Cambridge University Press, 1959.
- Wald, Haskell P. *Taxation of Agricultural Land in Underdeveloped Economies: A Survey and Guide to Policy*. Cambridge: Harvard University Press, 1959.
- Weintraub, Sidney. *An Approach to the Theory of Income Distribution*. Philadelphia: Chilton Company, 1958.
- . *A General Theory of the Price Level, Output, Income Distribution, and Economic Growth*. Philadelphia: Chilton Company, 1959.
- . *Price Theory*. New York: Pitman Publishing Company, 1956.