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Taxation: The Lost History

By TERENCE DWYER*

ABSTRACT. Regular, periodic taxation is a function of modern government, a practice that arose only because the rent of land and natural resources was transformed from the traditional source of public revenue in the Middle Ages to private property, starting in the 17th century. In the earlier era, taxes (special exactions on ordinary income and daily necessities) were imposed only under unusual circumstances, usually to fight wars. The French Physiocrats and their student, Adam Smith, proposed that the best form of modern taxation would be based on the same principle as the medieval system—a fee derived entirely from surpluses, not imposed as a burden on production. This was actually what Adam Smith meant by “ability to pay.” Smith’s sophisticated understanding of economic rent was, however, simplified and distorted by numerous economists throughout the 19th century, who buried the concept under layers of obfuscation. In particular, the substitution of “Paretian rent” for “Ricardian rent” committed the fallacy of composition by shifting rent from a social concept to a private, unit-level concept, which caused social surplus to simply “disappear.” Bringing this “lost history” to light permits us to re-evaluate how modern societies might benefit from Smith’s physiocratic concept of taxation. This work not only traces debates about rent—for example, whether rent arises from risk-taking, or whether a tax on rent raises commodity prices—but also discusses the practical benefits of taxing it today.

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Introduction

What if we could live in a world without taxation? Is taxation even necessary? This is a question few people (and fewer economists) dare to ask themselves. Yet this is the question that lies at the heart of the lost history of taxation and that started the forgotten origins of economics.

It is the question the French Physiocrats—Quesnay, Turgot, and Mirabeau—asked themselves, as they saw the French people groaning in the 18th century under the weight of viciously oppressive taxation, ultimately destined to bring forth a violent revolution. They answered that taxation, as commonly understood, was not necessary.

The Physiocrats saw a paradox: it was possible to levy a tax without taxing at all. They saw that the “*impôt unique*,” or unique tax, was in fact not a tax, but a “natural revenue” to the sovereign. It merely reclaimed a fee from landholders for the protection the sovereign provided for their land titles. The sovereign, as the embodiment of the nation, would then use the revenue to cover public expenses. Landowners were thus charged a fee for benefits conferred.

The American jurist Oliver Wendell Holmes once famously remarked: “Taxes are the price we pay for a civilized society.” The French Physiocrats, Henry George, and others, including the rulers of 20th-century mineral and oil-rich states, have politely disagreed. They have seen that, if civilization is worth paying for, its value will be reflected in what people are willing to pay to live or work in a country or to extract resources from it.

The Physiocrats saw clearly, as did Adam Smith, John Stuart Mill, Henry George, and many other economists after them, that all of society’s income represents the wages of labor, the profits of capital, or the rent of land. They saw that one of those incomes, the rent of land—the return to all natural resources in limited supply—was in fact a free income that required no human effort to create. It could therefore be taken by the state without any economic dead-weight loss. That characteristic of land value taxation derives from the price of land being *naturally* set by the market. Unlike true taxes, this fee is not an arbitrary amount added to the market-determined rent.

The economic insight of the Physiocrats paralleled the history of English taxation. It may come as a surprise to readers, but, even today, in the legal theory of English constitutional law and of all British-descended parliaments, all taxation is a free gift to the Crown by the common people out of their own revenues, a gift made by their consent, given through Parliament. The English common law does not recognize even today any concept of taxation as an ancient right of the Crown, save for customs duties regarded as a fee for protecting the trade of merchants.

The ancient government of the Kingdom of England rested upon feudal fees paid by landholders. The land of the kingdom belonged to the Crown, and the barons who each held portions of the land had to pay rent to the Crown. Thus the barons paid rent in cash or in kind. In emergencies, the common people, through the House of Commons, had the sole prerogative of granting aids or subsidies to the King out of their own pockets. Taxation was regarded in this system as an irregular emergency grant. The ancient dictum was that "the King should live of his own" and not lay claim to the earnings and savings of the common people and the merchants.

In the 20th and 21st centuries, governments have lost sight of that history. Across the world, governments are now supported by mass taxation. Yet since the global financial crisis of 2008, we have seen the solvency of governments threatened. Such crises are reminiscent of the desperate attempts of the French monarchy to stave off financial collapse before the French Revolution of 1789.

There is much discussion today about rising inequality, the proletarianization of the middle classes, and the rise of oligarchs and plutocrats. Mass youth unemployment is now the norm in many supposedly advanced countries, while living standards are being eroded by "austerity" programs purportedly necessary to restore the fiscal stability of heavily indebted states. At the same time, there is popular denunciation of tax avoidance and evasion and a concerted international campaign against financial privacy with the stigmatization of tax havens or privacy havens as international rogue states.

The lost history of land value taxation puts all of this current noisy chatter into perspective. The reality is that history is repeating itself. Since governments have been unwilling to collect their sovereign

rents, they have increasingly plundered wages and sought to mulct the profits of capital. It is hardly surprising that two great factors of production, labor and capital, have silently been going through a process of mass revolt.

The revolt by capital is most obvious. Mobile capital has learned to flee borders, more easily than the Huguenots fled to England or Geneva. Physical capital in high-tax Europe has revolted by being allowed to deteriorate, and new replacement plants are constructed in emerging economies to supply the home market as tariffs have come down. In both cases, the skillful and necessary work of lawyers and accountants, by reducing the effective tax rates on capital investments, has probably blunted some of the evil effects of public policy.

Labor has been less easily able to revolt. While skilled labor can in some cases revolt by fleeing overseas to less highly taxed countries, labor is less mobile than capital and tied to its home by bonds of family, friendship, and culture. Even so, labor has revolted in various ways. Some professions have found ways to incorporate and divert income to family members to reduce the impact of high marginal income tax rates. Families have adapted to income tax pressures by preferring two earners with medium incomes to one high-salary earner facing high marginal tax rates. But the primary response of labor—silent, hardly remarked upon, but economically and socially deadly—has been a failure to reproduce, as predicted by Adam Smith and other classical economists.

This survey of the history of taxation theory as it pertains to land values brings out several great themes, some of them well established, others only now beginning to evolve into academic consciousness, and some yet to be explored. These themes may be summarized thus:

1. Land *can* be taxed without excess burden (also known as “deadweight loss”), that is, without creating economic distortions. Land value taxation is a “neutral” form of taxation.
2. Land *must* be taxed if land markets are not to be inefficient due to suboptimal land speculation. Taxing land values actually *improves* resource allocation rather than creating economic

distortions. Land value taxation is a “super-neutral” tax when it comes to making sure natural resources are put to the best use for society as a whole.

3. Land *must* be taxed if we are not to allow either the emergence of monopoly or spatial distortions in the location of economic activity. All monopolies, other than legislated ones (such as patent monopolies), rest upon seizure and ownership of natural resources. Only by taxing these on a current value basis can one equalize the playing field between incumbents and challengers. More speculatively, not taxing land values discriminates against economic activity outside metropolitan centers and creates environmental, economic, and social costs.
4. Land *must* be taxed if monetary policy aimed at stimulating investment is not to end up creating land bubbles and subsequent depressions. A zero-interest-rate policy run by central banks necessarily means land prices will be driven exponentially upwards, as future rents are capitalized at ever lower expected interest rates. As Keynes recognized, land, like money, is a link between the present and the future and therefore an object of speculation.
5. Land *should* be taxed for intra- and intergenerational equity. As a matter of justice and equity, since no one made the land, no one can claim ownership on any moral principle. All persons should be free over all generations to seek to use it on an equal footing.

These remarkable propositions seem to flow from the simple fact that land exists across space and over time.

All economic activity is a case of people working, over generations, on or with land. Where land is fruitful and abundant, the market price is zero. Where land is scarce, it commands a high price, as with sites for city buildings or diamond mines or oil fields. Economic progress is the triumph of “Abundance suppressing Avarice,” so brilliantly portrayed by Peter Paul Rubens in the ceiling of the Banqueting House in London. In that sense, economics is about the struggle to annihilate market value (Adam Smith’s “value in exchange”).

There are no more pernicious sayings in economics than “there is no such thing as a free lunch,” “economics is about the allocation of scarce resources,” or “economics is about profit maximization.” The history of the theory of land value taxation gives the lie to all of these. The history of land value taxation shows that economic theory need not be a dismal science or confined to a coarse study of vulgar money-making. It can display a harmony of theory, policy, and justice as elegant and beautiful as any theorem in mathematics.

There is indeed a “free lunch” when inefficient taxes on labor or capital are replaced by efficient taxation of land values. Economics is not about rationing scarce resources but about creating abundance by putting natural resources to their best and highest use. As for the idea that profit maximization is the end of economics, it confuses means and ends. Profit maximization is valuable only where, in a competitive market, it creates an incentive to lower market prices by increasing production. But where it arises from monopoly pricing through engrossing of common resources or other abuses, profit is nothing more than a form of vicious privatized taxation.

The real object of economic science is to annihilate both scarcity and profit. The ideal economic society would be one where scarcity ceased to exist—where every material human desire could be gratified without any effort. Having been expelled from the Garden of Eden, however, we must labor to retrieve that lost ideal economy. In this perfect economy, there would be no economy and no need to economize; prices and GDP would have ceased to exist because all that was desired could be had with no effort.

The remarkable Physiocratic vision created modern economics out of medieval roots in natural law. It saw economics as part of natural law, being a natural system of market exchange between the owners of land, labor, and capital, as natural as the exchange of blood between the organs of the body, discovered by Harvey not long before. It was a vision that saw a logical, natural system of collecting revenue for public purposes that did not repress the incentives to work or save or invest, that treated all who wanted to use natural resources on an equal footing from generation to generation, and that reflected the wisdom of Divine Providence for humans in their fallen state.

Of course, many economists and writers today would cringe at the idea that there was anything divinely inspired about economics. They would cringe at the idea that there is a normative economics based upon some kind of natural law.

Unfortunately, this fear has meant that the zealotry of some advocates of land value taxation has made economists look away from its history and intrinsic merit. The Physiocrats and others after them, notably Henry George, were not embarrassed to think they had discovered a simple and obvious system of natural liberty and natural rights that reflected the wisdom of a divine author. But one does not have to be a theist to appreciate the elegance of mathematical theorems or the astonishing intellectual beauty of something such as the proof of Fermat's Last Theorem. Similarly, economists and policymakers do not need to be theologians or philosophers to appreciate the elegance of land value taxation as a solution to many pressing economic problems.

Land value taxation elegantly solves the problem of providing infrastructure or territorial public services and enabling public utilities to offset losses from pricing services at short-run marginal cost, as understood by writers such as Hotelling, Vickrey, and Stiglitz. The Henry George Theorem is a remarkably elegant and pervasive result. By recouping the cost of public amenities and infrastructure from the value of the lands serviced, a country or city can keep its costs of operating production low and ensure its productivity and international competitiveness are not eroded through high wage or manufacturing costs. Similarly, land value taxation pledged as security for amortized infrastructure loans provides the means to supply infrastructure to growing cities without imposing high costs on new housing entrants and families at the margin.

The problem of housing affordability is also partially resolved with land value taxation. While technological progress is always reducing construction costs, land value taxation operates to press land into service and make it available to those who cannot afford a large upfront, lump-sum payment for a perpetual stream of speculative capitalized rents, that is, to buy land for a home.

Central banks trying to stimulate economic activity are finding that credit creation and low interest rates are merely driving up the prices

of existing assets and, in the process, creating more inequality of wealth and income. Land value taxation short-circuits that process by preventing easy credit from being siphoned off into asset bubbles, so that it might stimulate physical capital investment instead. Land values lie at the heart not only of real estate speculation but also, in many hidden guises, lie behind stock market speculative bubbles. One has only to think of gas and oil stocks or retail chains. By raising the cost of passive speculation, land value taxation helps direct credit back towards productive capital formation and the promotion of employment. Although not the subject of this book, there is a growing literature on the interaction between land speculation and depressions, notably represented by professors Michael Hudson and Mason Gaffney, that is giving new life to the observations of Henry George.

The problems associated with income taxation of international tax competition or "base erosion and profit shifting" do not have a similar effect on the tax base for a land value tax. The latter avoids the problems of value-added taxes or goods and services taxes (VAT or GST) in dealing with international transactions. Being an inherently territorial tax, it cannot be illegally evaded or legally avoided. The taxpayer has to pay the tax, under penalty of forfeiting title. The taxpayer is, in reality, not a "taxpayer" at all, but a tenant paying rent to the real landlord. Problems of tax evasion or income or asset concealment are unknown in taxing land values.

Land value taxation requires no invasion of the sovereign rights of other countries or the human, constitutional, or ancient common law rights of citizens or subjects. It also requires no international treaties, no country to act as another's tax vassal, no source countries to yield tax revenue to residence countries, and no country's financial institutions to act as spies for the benefit of other countries. All of this is in complete contrast to the obligations increasingly being forced upon small independent countries and financial centers by the dictates of the former great powers, operating collectively through international agencies such as the Organization for Economic Cooperation and Development (OECD), the Financial Action Task Force (FATF), the International Monetary Fund (IMF), the European Union, or acting unilaterally, such as the United States, in trying to impose its Foreign Account Tax Compliance Act (FATCA) on the rest of the world.

Indeed, the OECD attacks since the 1990s upon tax havens or privacy havens are fundamentally misconceived. All countries have land tax bases; there is simply no need for them to go about trying to chase mobile capital to the four corners of the earth or to seek to impose extraterritorial tax obligations upon entities created under the laws of other countries.

The criminalization of taxpayers or the interference in civil cases disappears with land value taxation. It does not require the invasion of human rights or the corruption of legal due process through such procedures as reversals of the onus of proof, the authorization of warrantless searches without probable cause, or the interception of telephone calls or other taxpayer communications. Gross and systematic invasions of privacy of individuals and businesses are not required. In contrast to income taxation or indirect taxes such as value-added tax, a land value tax only requires a valuation of physically observable parcels of land. If the taxpayer disputes the valuation, that is a matter that can be dealt with through normal civil dispute resolution procedures. The taxpayer cannot avoid or evade the tax, which can even be put on the public record and placed on the land title. All the taxpayer can do is try to evade payment of the tax, but that is a fruitless exercise because the tax authorities can force the sale of the land to recoup the tax. There is no need for transfer pricing rules or anti-avoidance legislation. The writer is unaware of any Australian taxpayer who has ever been able to avoid or evade a municipal rate (tax) on land value or has been personally charged with any such offense.

For those concerned with questions of equal rights or rising income or wealth inequality, land value taxation provides a principled solution. Instead of trying to bring about a redistribution of income, land value taxation tries to ensure that the original distribution of incomes arises in an ethically just manner. By ensuring that labor can obtain access to land on an equal footing, it prevents the accretion of wealth through prior appropriation of natural resources. Each generation is treated on an equal footing. Priority of occupation does not allow some people to start with arbitrary advantages conferred upon them by an arbitrary distribution of natural wealth. No one starts by being given inherited title deeds to the earth. Unlike other taxes, land value

taxation does not try to end income inequality in any arbitrary way without regard to earned or unearned incomes. It does not seek to attack labor or capital incomes that represent the direct or indirect result of human labor. It attacks inequality at the source, which is the unequal division of the Earth's resources.

These opening reflections are perhaps more than reason enough for economists, politicians, officials, and others to revisit the history of economic thought and rediscover the lost history of taxation. Very few of them seem to be aware that many of the problems they are daily confronted with would be vastly simplified were they to go back to first principles in taxation and recapture the insights that first occurred to Quesnay and the Physiocrats. Land value taxation is indeed "the unique tax," a tax that does not destroy or distort economic activity but rather promotes it and that conforms to a logical concept of economic justice. No such claim can be made for any other form of taxation.

Chapter 1

Historical Disputes About the Nature of Rent

What remains is that independent and disposable part which the land gives as a pure gift to the one who cultivates it, over and above his advances and the wages of his toil; and this is the share of the Proprietor, or the revenue, with which the latter is able to live without working.

A. R. J. Turgot ([1788] 1973: 126)

There is this difference between land and other agents of production, that from a social point of view land yields a permanent surplus, while perishable things made by man do not.

Alfred Marshall (Appendix K, §2, ¶8)

1.0. Introduction

The concept of “rent” in the classical economic sense is alien to modern ears. It started off as the price a tenant paid to lease some land, but it developed a much more complex meaning. It refers to a surplus value, created by nature or social interaction, not by the efforts of individuals. It appears to us mostly in the price of land, which represents a pure surplus because it has no cost of production. As a free gift of nature, a positive price for land represents a surplus of value over cost. But even to say that much is to take sides in the debate over the meaning of this term, for the first question about rent is whether it represents surplus or scarcity.

1.1. Does Rent Stem from Abundance or Scarcity?

The first concept of rent that appeared in economic literature was that of rent as the free gift of nature. As Turgot ([1788] 1973: 123) put it:

The land, independently of any other man and of any agreement, pays him [the husbandman] directly the price of his labor. Nature never bargains with him in order to oblige him to content himself with what is absolutely necessary. What she grants is proportionate neither to his needs nor to a contractual evaluation of the price of his working day. It is the physical result of the fertility of the soil, and of the correctness, much more than of the difficulty, of the means he has employed to render it fruitful.

Rent (that is, net product or revenue) is “that independent and disposable part which the land gives as a pure gift to the one who cultivates it,” and once land is privately owned, “is the share of the Proprietor” (Turgot [1788] 1973: 126).

Adam Smith (BK II, §5, ¶12), although rejecting the Physiocratic doctrine of the sole productivity of nature, also remarked that “[i]n agriculture too nature labors along with man; and though her labor costs no expense its produce has value, as well as that of the most expensive workman. . . . Rent may be considered as the produce of those powers of nature, the use of which the landlord lends to the farmer.”

Ever since Ricardo (Ch. 32, ¶1, ¶5) declared that Malthus was in error “in supposing rent to be a clear gain and a new creation of riches,” whereas in fact “rent is a creation of value . . . but not a creation of wealth,” the notion that rent is the gift of nature has been regarded as obsolete. Thus J. S. Mill (BK I, Ch. 1, §3) remarked that the French economists and even Adam Smith were mistaken in supposing that rent was due to the productive services of nature, rather than the scarcity of those services. Marshall (BK 6, Ch.9, §4, ¶12) repeated the criticism, stating that the “producer’s surplus from land is not evidence of the greatness of the bounty of nature, as was held by the Physiocrats and in a more modified form by Adam Smith: it is evidence of the limitations of that bounty.”

Cannan (1894: 228) considered it unimportant whether rent is attributed to the bounty or scarcity of nature. Nevertheless, in justice to Cantillon, the Physiocrats, and Smith, we ought to go further and concede that a profound insight had been gained. Land yields a rent because, though costless, it is a productive as well as a scarce factor (Schumpeter 1954: 264–265).

This view of rent is superior to the view held by H. C. Carey, Frederic Bastiat, and Frank Knight (Buechner 1976: 599), who claimed that rent was merely a return to capital. The Physiocrats and Smith clearly recognized land as a factor of production, *separate* from labor and capital. Moreover, this concept of rent was embodied in a functional analysis of factor incomes and not, as commonly asserted, an analysis growing out of the incomes of social classes. Turgot’s ([1788] 1973: 124–125) discussion of landed property and Smith’s (BK I, Ch. 6, ¶19–23; Ch.8, ¶9; Ch. 9, ¶18; Ch. 10, ¶39) observations on cases of the

confounding of rent, wages, and profit showed this clearly. Malthus ([1815] 1903: 18) also perceived the functional character of rent.

The idea that rent is due to the bounty of nature tended to concentrate attention solely on rent as an agricultural phenomenon. That is the issue to which we now turn.

1.2. Payment for Land

The notion that rent is due to the bounty of nature went hand in hand with the idea that it is a payment for the use of the inherent fertility of the soil, which was the cause of the distinction between agriculture and manufacturing. Urban rent was at first not considered.

Quesnay ([1759] 1972: 7), in his discussion of the maxims of Sully, explicitly stated that house rent, like interest, is a transfer from one person to another of a part of the national income and does not represent an original revenue. Ricardo (Ch. 2, ¶2), in turn, was to stress rent as an agricultural phenomenon when he asserted that “[r]ent is that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil”—a definition as famous as it is ambiguous. Ricardo (Ch. 18, ¶4–6) himself tacitly denied that rent is a payment for “original” powers when he suggested that the quasi-rent earned by capital sunk in the land is rent (Cannan 1894: 195–196). In addition, one wonders how Ricardo (Ch. 3) could have headed his next chapter “On the Rent of Mines,” having announced in the previous chapter the Marshallian view that a royalty is not a rent.

Adam Smith was inconsistent on the natural basis of rent. On the one hand, he leaned towards Cantillon and the Physiocrats in regarding food as “the original source of rent” since the fertility of the soil raised up a population and markets (Smith, BK I, Ch. 11, ¶60, ¶87–88). On the other hand, he showed superior insight to Ricardo when he stated that “rent . . . is regulated . . . partly by the general circumstances of the society or neighborhood in which the land is situated, and partly by the natural or improved fertility of the land” (Smith, BK I, Ch. 7, ¶2). Cannan (1894: 194) said that Smith (BK I, Ch. 11, ¶1, 2, 5) included the quasi-rent of sunk capital in his notion of the rent of land. But Smith’s (BK II, Ch. 2, ¶4; BK I, Ch. 6, ¶19–23)

discussion of the gross and net rent of land, together with his stress on a functional analysis of incomes, suggested this is not so.

In any case, whereas Ricardo took situation (site location) as exogenous (valued independently of surrounding activity), Smith fully grasped that *physical* fertility is not *value* fertility because location is endogenous (related to surroundings), and rent can thereby reflect *humanly-created* external economies. (Böhm-Bawerk ([1884] 1959: 74–76) was also critical of naive interest theories in which physical and value productivity were conflated.) Thus Smith was to avoid the identification by Ricardo, J. S. Mill, and others of rent and diminishing returns, together with the naive Malthusianism that resulted (Schumpeter 1954: 259). Was it perhaps then Smith's awareness of these other causes of rent that led him to ignore the discovery of diminishing returns by Stewart and Turgot before him?

1.3. Rent and Diminishing Returns

Schumpeter (1954: 265) remarked that we need “nothing beyond the productiveness and scarcity of land to explain why there is such a thing as rent. Neither the fact to be explained nor the explaining facts have anything to do with decreasing returns.” Nonetheless, the two phenomena were inseparable after Ricardo.

Ricardo (Ch. 2, ¶25–26, Ch. 5, ¶28–29) built his analysis by generalizing from an a-spatial farm, so as to concentrate on the distribution into relative shares among classes of the “value” (not “riches”) created. St. Clair ([1957] 1965: 79) points out that Ricardo thereby ignored location rent. Ricardo (Ch. 32, ¶15–17, 23) clearly established the intensive and extensive margins and showed that the nonexistence of no-rent land was irrelevant to the question of whether rent would arise, a point that continued to confuse Walker (1883) several generations later.

Ricardo concluded that rent would naturally tend to rise as a percentage of national income as population grew and land had to be cultivated under worse circumstances. Moreover, as J. S. Mill (BK II, Ch.1, §1) was to emphasize, the growth of rent was the sign of resource exhaustion, the ever-present reminder of the stinginess of nature, and people had no choice but to avoid population growth to

maintain their standard of living. Diminishing returns partook, according to Mill (Preface: vi), “of the character of physical truths . . . Whether they like it or not, a double quantity of labor will not raise, on the same land, a double quantity of food.” Even though this is correct, it does not support his dismal conclusions, and the reasons are indicated, as we shall see, in the work he considered “somewhat obsolete”—the *Wealth of Nations*.

Mill (BK II, Ch.16, §2) admitted that rent was due to location as well as fertility. But location in relation to what? Markets, of course. Smith would have promptly remarked that the division of labor is limited by the extent of the market, hence greater markets and greater population mean greater productivity, which can offset diminishing returns indefinitely. Or, as Henry George (1879: BK IV, Ch. 2, ¶7; 1898: BK III, Ch. 4, ¶10; Ch. 6, ¶10; Ch. 7) was to put it:

While the increase of population thus increases rent by lowering the margin of cultivation, it is a mistake to look upon this as the only mode by which rent advances as population grows. Increasing population increases rent, without reducing the margin of cultivation: and notwithstanding the dicta of such writers as McCulloch, who assert that rent would not arise were there an unbounded extent of equally good land, increases it without reference to the natural qualities of land, for the increased powers of co-operation and exchange which come with increased population are equivalent to—nay, I think we can say without metaphor, that they give—an increased capacity to land.

Thus Smith (BK I, Ch.11, ¶206, ¶238), who was more concerned about absolute levels of national income than distributive shares, regarded economic progress as a rent-maximizing process, for the “land constitutes by far the greatest, the most important, and the most durable part of the wealth of every extensive country. It may surely . . . give some satisfaction to the public, to have so decisive a proof of [its] increasing value.” (Samuelson (1977: 42–49) later “vindicated” Smith by mathematically showing that economic growth increases rents.)

Marshall (BK V, Ch.11, §1, ¶ 2–4) saw the problem of confounding “*the amount* of the produce raised [by] increasing applications of capital and labor in the cultivation of land” with “*the value* of the produce.” Yet his loyalty to Ricardo left him inclined to think that diminishing returns due to nature might, in agriculture, still overcome

increasing returns due to specialization of labor (Marshall, BK VI, Ch. 9, §4, ¶12, fn. 100; Ch. 10, §8). In summarizing the relationship between rent and diminishing returns, Marshall (BK V, Ch. 8, §4, ¶13) logically deduced from the “great classical Law of Diminishing Returns” a conclusion that was much too narrow in its treatment of the causes of rent.

Associated with the idea of diminishing returns was the notion that rent does not enter into price; and from it was to emerge the law of variable proportions and the theory of marginal productivity, which formalized the view that rent was a payment for differential advantage.

1.4. Rent as Demand-Determined Price

The Physiocrats realized that the rent of land, and its capitalized value, were not dependent on the conditions of supply of land, which was a naturally given factor. Turgot ([1788] 1973: 154) clearly saw that the rent of land was therefore fixed by the derived demand of would-be users of land:

The competition of wealthy agricultural entrepreneurs establishes the current price of leases in proportion to the fertility of the land and the price at which its produce is sold, always in accordance with the calculation which the farmers make of their costs and of the profits which they ought to draw from their advances: they are unable to give the proprietor more than the surplus. But when the competition is very keen, they give him the whole of this surplus, since the proprietor will let his land only to the man who offers the highest rent.

Given the rent thus determined, the value of land was obtained by capitalization at the rate of time preference (Turgot [1788] 1973: 149; Fetter 1927b: 65–67; 1977: 264–266).

This view of rent was adopted by Adam Smith (BK I, Ch. 11, ¶5) when he stated that the

rent of land, therefore, considered as the price paid for the use of land, is naturally a monopoly price. It is not at all proportioned to what the landlord may have laid out upon the improvement of the land, or to what he can afford to take; but to what the farmer can afford to give.

Whereas Smith was content to let value from scarcity and value from cost of production stand together in his anticipation of the Walrasian general equilibrium theory of value, Ricardo was not.

Ricardo (Ch. 1, ¶5) clearly saw that some objects have a price that is entirely determined by demand because they are irreplaceable:

There are some commodities, the value of which is determined by their scarcity alone. No labor can increase the quantity of such goods, and therefore their value cannot be lowered by an increased supply. Some rare statues and pictures, scarce books and coins, wines of a peculiar quality, which can be made only from grapes grown on a particular soil, of which there is a very limited quantity, are all of this description. Their value is wholly independent of the quantity of labor originally necessary to produce them.

Land, of course, fit this description and Ricardo had to “get rid of rent” from his cost of production theory of value. He did so by invoking diminishing returns and margins of production, both intensive and extensive. Value was *determined by* (not “measured by” or “equal to”) the marginal cost of production. Nonetheless, in spite of his distinctive approach to value theory, Ricardo also would have agreed that rent is a demand-determined factor price, a payment for infra-marginal surplus.

Marshall (Bk. V, Ch. 9, §2, ¶8), in his synthesis of Ricardian and general equilibrium analysis, saw this clearly and, in his parable of the rent of meteoric stones, commented that the

owners of them would have a differential advantage in production, that would afford a large producer's surplus. This surplus would be governed wholly by the urgency and volume of the demand for their services on the one hand and the number of stones on the other hand: it could not be affected by the cost of obtaining a further supply, because none could be had at any price.

Rent, of course, could be affected by the cost of production of substitute factors.

The significance of the notion that rent is a demand-determined price became apparent in Marshall's (BK V, Ch. 14, §4, esp. n. 131; [1890] 1961: 415) analogy between rent and monopoly pricing and the parallel between the incidence of taxes upon rent and taxes upon monopolies. It also figured in the argument, familiar to accountants, that the distinction between land and capital can be seen in the fact that the

value of land, like that of bonds or of a secure monopoly, bears no relation to cost of duplication. It is arrived at solely by a process of

discounting or capitalizing the prospective income from it at the current interest rate. Capital value, however, depends not only indirectly, but also *directly*, on present cost of production (or of duplication). (H. G. Brown 1929: 361)

1.5. Rent as Unique Surplus

The Physiocrats are alleged to have held that only agriculture was productive and that manufacture was sterile. So stated, their doctrines have been regarded as self-evidently foolish. However, before dismissing the opinions of obviously intelligent men, it is perhaps well to ask ourselves: What did they mean?

The answer, I would suggest, lies in asking oneself what ought to be net national income. The obvious modern answer is that it is the value of goods and services provided in a year less costs of production. From gross production, one deducts depreciation and cancels out intermediate sales and is left with wages plus net operating surplus or, in Adam Smith's terms, wages plus profits and rents.

The Physiocrats went further. Turgot ([1788] 1973: 122, 146, 181) held that wages were but the cost of production of labor supply, although sometimes they are in excess of subsistence. He also held that interest was the cost of keeping capital in the country (Turgot ([1788] 1973: 154, 178). Regarding the latter, Quesnay ([1759] 1972: 8, 13) explained, "for monetary fortunes are a clandestine form of wealth which knows neither king nor country." Hence, they argued net national income was simply rent, or the net product of land. The Physiocratic view was thus that, although labor produced its own wages, and capital raised the productivity of land, these two factors of production were *not* productive of *a surplus over their supply cost* (Turgot [1788] 1973: 123, 133; Quesnay [1759] 1972: 5–6). Thus, just as Adam Smith's "unproductive laborers" could be necessary to a nation's productive activities, so the Physiocrats conceded the necessity of labor and capital in production, but were still adamant that rent alone was the true net national income or "revenue" of a nation.

Adam Smith's (BK 2, Ch. 3, ¶1; BK IV, Ch. 9, ¶29–37) criticisms of the Physiocratic use of the term "productive" are well known. Nevertheless, Smith (BK IV, Ch. 9, ¶38) considered the Physiocratic system "the nearest approximation to the truth that has yet been published

upon the subject of political economy, and is upon that account well worth the consideration of every man who wishes to examine with attention the principles of that very important science." Consequently, Smith agreed with the Physiocrats in their definition of rent as the unique surplus. Smith (BK I, Ch. 11, ¶261) first linked factor pricing and distribution:

The whole annual produce of the land and labor of every country . . . naturally divides itself . . . into three parts: the rent of land, the wages of labor, and the profits of stock; and constitutes a revenue to three different orders of people . . . These are the three great, original and constituent orders of every civilized society, from whose revenue that of every other order is ultimately derived.

Then Smith (BK I, Ch. 11, ¶262) immediately stated of landowners: "They are the only one of the three orders whose revenue costs them neither labor nor care, but comes to them, as it were, of its own accord, and independent of any plan or project of their own." Therefore, Smith (BK V, Ch. 2, ¶87–91, ¶131–136) virtually agreed with the Physiocrats in depicting rent as the unique surplus. That was reinforced by the reason he gave for not taxing wages or profits: they are costs of production.

Ricardo (Ch. XXVI, ¶2, 3) accepted the idea "that the power of paying taxes is in proportion to the net, and not in proportion to the gross revenue," and he identified net revenue with profits plus rent, arguing that wages "if moderate, constitute always the necessary expenses of production." That idea is still vestigially honored today in all income tax systems of the British Commonwealth that exempt a subsistence income.

The admission that certain incomes other than land rent contained a surplus element opened up a line of reasoning that was to be perfected by J. A. Hobson, but for the moment we may sum up the idea that land rent was the unique surplus by expressing it in Marshallian terms: land represents the only income that, in the long run, is a surplus over the real costs of its production, in terms of labor and capital devoted to a task. As Marshall (Appendix K, §2, ¶ 8) himself put it:

in the long run the earnings of each agent are, as a rule, sufficient only to recompense at their marginal rates the sum total of the efforts and

sacrifices required to produce them. If less than these marginal rates had been forthcoming the supplies would have been diminished; and on the whole there is in general no extra surplus in this direction . . . But there is this difference between land and other agents of production, that from a social point of view land yields a permanent surplus, while perishable things made by man do not.

The concept of real cost and rent as a social surplus now lead us naturally into the question of whether or not “rent enters into price.”

1.6. Rent Does Not Enter into Price

The controversy over the question of whether rent does or does not enter into price is surely one of the most important in the history of economic thought. I think it accurate to state that from this debate has come the marginal productivity theory of distribution, the theory of quasi-rents, and, ultimately, the neoclassical concept of capital formulated by J. B. Clark, which has recently come under renewed attack. Unfortunately, much of the controversy has been unnecessary because Adam Smith ably analyzed the question.

D. H. Buchanan (1929: 126) charged that it “has been common to pronounce Adam Smith inconsistent in his treatment of rent and price. He stated that rent both was and was not an element in determining the price of commodities.” (Buchanan was referring to Smith (BK I, Ch. 6, ¶11; Ch. 11, ¶8).) The charge was later repeated by Edgeworth (1900: pt. I: 190): “It being universally admitted that in McCulloch’s words, ‘there are few chapters in Dr. Smith’s great work more unsatisfactory than his chapter on rent,’ it will not appear particularly impious to dispute a formula which involves Adam Smith’s obsolete conception of rent forming a part of price.” The criticism is still to be found in histories of economic thought (Landreth 1976: 62).

Hence, it would seem wise to comment on the views taken by Ricardo, J. S. Mill, Jevons, and Marshall on rent and price before looking at Adam Smith’s doctrines.

Ricardo’s (Ch. 2, ¶15, 19) doctrine on rent and price is admirably clear: “Corn is not high because a rent is paid, but a rent is paid because corn is high . . . rent does not and cannot enter in the least degree as a component part of its price.” The underlying basis of this

assertion, according to Buchanan (1929: 138, 140), was Ricardo's implicit assumption that land had one use (growing corn). The motive for the assumption, according to Sraffa (1951: xxxii–xxxiii) and Winch (1973: xi), was both to obtain a cost of production theory of value by going to the extensive or intensive margin and to determine the rate of profit by comparing homogeneous input and output.

John Stuart Mill attempted to restate the Ricardian doctrine but, in doing so, he gave a somewhat different and modified version of the theorem that “rent does not enter into price.” Mill's (BK 1, Ch. 4, §2, ¶6) first reason is that rent is not a real cost of factor supply: “In the case of the implement (a thing produced by labor) a price of some sort is the necessary condition of its existence: but the land exists by nature. The payment for it, therefore, is not one of the expenses of production.” This statement is obviously correct and is conceded by the most strenuous advocates of the concept of opportunity cost (Alchian and Allen 1964: 118). It is also the reason paintings and other works of art do not earn true “rent”—they would not exist if there were not an incentive at the time of their production.

The second reason Mill (BK II, Ch. 16, §6, ¶18) advanced is that rent is not a cost to the individual producer because it pays for itself: “Whoever cultivates land, paying a rent for it, gets in return for his rent an instrument of superior power to other instruments of the same kind for which no rent is paid. The superiority of the instrument is in exact proportion to the rent paid for it.” This argument, however, is not peculiar to land, as Mill recognized. Mill (BK III, Ch. 5, §4, ¶15) asserted: “Wages and profits represent the universal elements in production, while rent may be taken to represent the differential and peculiar . . . The price paid for a differential advantage in producing a commodity cannot enter into the general cost of production of the commodity.” However, he did not elaborate further on this idea. It was left to J. B. Clark and J. A. Hobson to treat rent as a universal phenomenon, not limited to land.

The most important statement by Mill (BK III, Ch. 6, §1, ¶10) on the subject of rent entering into price is given in his “Summary of the Theory of Value”:

Rent is not an element in the cost of production of the commodity which yields it; except in the cases (rather conceivable than actually existing) in

which it results from, and represents, a scarcity value. But when land capable of yielding rent in agriculture is applied to some other purpose, the rent which it would have yielded is an element in the cost of production of the commodity which it is employed to produce.

This concession was seized upon by Jevons and the other neo-classical economists to attack the doctrine that rent does not enter into price. But, as Bladen (1974: 344–345) notes:

in the classical system land was treated differently from the other factors of production because its supply was taken as given, as independent of price. Once the supply of labor, or capital, is taken as given, the distinction disappears and the concept of rent applies to all. The stage is set for the development of a new position, that the prices of products no more determines the prices of factors, than prices of factors determine the prices of products.

Collier (1975: 163) has emphasized the same distinction between the assumptions of classical versus neoclassical economics. The neoclassical criticism was based on the notion of alternative uses of land, with the rent paid in one use being the opportunity cost of land employed in another use.

Marshall was not happy with the contention that the notions of opportunity cost and alternative uses of land were sufficient to dispose of the Ricardian doctrine that rent does not enter into price. He remarked:

I hold that the point of Ricardo's doctrine is to be sought in the fact that the cost of production of the marginal produce can be ascertained (theoretically at least) from the circumstances of the margin, without reasoning in a circle, and that the cost of production of other parts of the produce cannot. For other parts yield a rent or a quasi-rent, or both: and these are determined not by the circumstances of production of the parts in question, but by the price of the whole produce. (Marshall 1893: 84–85)

Marshall wanted to interpret cost of production in the sense of real cost of production and hence, following Ricardo, he invoked the intensive margin to “get rid of rent” by describing a rent-free point at which price exactly equals the cost of inputs. His objection to the opportunity cost approach to rent was based on the observation that the amount bid for land in alternative uses depended logically on the surpluses over real costs that could be made in each use. Thus if a farmer growing hops

reckoned that he could get a surplus of 30 pounds above his expenses (other than rent) . . . and a surplus of only 20 pounds above similar expenses by growing any other crop, it could not truly be said that the rent which the field could be made to yield by growing other crops "entered into" the marginal price of hops. (Marshall BK V, Ch. 10, §5, ¶23, fn95)

It has been pointed out by D. H. Buchanan (1929: 153) and H. G. Brown (1931b: 498–500) that Marshall's argument depended upon an implicit assumption of disequilibrium: that land would shift from one use to another so as to equalize its returns and on the assumption that land is homogeneous. However, the assumption was heroic since classical theory assumed land to be of heterogeneous quality, whereas labor and capital were assumed homogeneous.

At this stage it is worthwhile to return to Adam Smith, whose "comprehensive mind" formulated as correct a view of the relation of rent to price as can even now be given. (The reference to "comprehensive mind" is Ricardo's (Ch. 24, ¶6) apt phrase.)

Smith discussed the relationship of rent to price under three circumstances:

- (1) When considering rent in the aggregate, Smith (BK I, Ch. 11, ¶2, 5, 262) recognized that rent was not a real cost of production to society, being no recompense for "labor or care." In the aggregate, therefore, rent is not a cost of production.
- (2) In dealing with particular commodities, Smith (BK I, Ch. 7, ¶8, 14, 30; BK I, Ch. 11, ¶33, 44, 50) took the view that rent may or may not be a cost of production, depending on whether other uses compete for the land. The normal rent of land, which forms part of the natural price of a commodity, is the competitive rent determined by alternative uses;
- (3) However, when land is uniquely suitable for a specialized use (e.g., vineyards for rare wines), Smith (BK I, Ch. 7, ¶24–25; Ch. 11, ¶39–42, 48) recognized that its rent would be a special monopoly rent.

But in the two latter cases, what was bid for the land would depend on the surplus it yielded. Smith's statements on the relation of rent to price are thus able to reconcile the Ricardian and Jevonian positions

without committing the errors of assuming land is restricted to one use or is homogeneous. If we want to translate Smith into modern jargon, as Buchanan (1929: 123–155) and Bladen (1974: 47) have done, his position may be summed up as:

- (1) Rent is a surplus of factor price over the real cost of production of the unproduced factor, land (which cost was zero).
- (2) Rent is a cost of production of a particular commodity only in the sense that it must cover the opportunity cost (value in an alternative use) of the land.
- (3) The surplus, if any, of rent paid for a piece of land over its opportunity cost is indicative of a special monopoly rent. This may arise because land is not homogeneous.

It is remarkable that the controversy over the relationship between rent and price should have persisted for so long when a close perusal of Adam Smith would have shown the different hypotheses underlying the opposing positions. For our purposes, however, the significance of this controversy is that it led to the identification of rent with any producer's surplus, an identification that meant that land ceased to have the importance classical writers had assigned to it.

1.7. Rent as Any Surplus

As we have seen, the controversy over the question of whether rent does or does not enter into price fostered the notion that land rent was only a specific kind of surplus, a representative, as Marshall (BK V, Ch. 7, §6, ¶4) puts it, of a "large genus."

This development in thought was not sudden. Turgot ([1788] 1973: 146, 181) saw that wage-earners might earn a surplus over subsistence wages due to energy, skill, economy, or special ability and yet rejected the temptation to classify such a surplus as a species of rent because he argued that such a surplus was necessary for capital formation.

David Buchanan (1814: 39–40), in his observations on the *Wealth of Nations*, clearly raised the question of identifying rent as a surplus of price over real cost:

Rent being a surplus above wages and profit, whatever yields this surplus may be said to pay a rent. The inventor of a machine for abridging labor,

were he to keep his secret, might sell his goods for such a price as would yield a rent or surplus above wages and profit. . . . When Dr. Smith considers the extraordinary profit derived from secrets in manufactures as the high price of the manufacturer's private labor, he clearly mistakes the nature of this profit, which is in no respect different from the rent of land.

We see here the germ of the idea that rent may also be viewed as a surplus due to factor heterogeneity.

Ricardo (Ch. 2, ¶17) acknowledged this point: if machinery were to become worse "a rent would be paid to all those who possessed the most productive machinery." Yet while thus foreshadowing the theory of quasi-rent and the application of the principle of differential advantage to other factors than land, Ricardo did not pursue the idea. Rent remained as land rent.

John Stuart Mill (BK 3, Ch. 5, §4, ¶2) repeated Buchanan's point when he stated that there were cases of extra profit analogous to rent: "Wages and profits represent the universal elements in production, while rent may be taken to represent the differential and peculiar"¹—a clear lead into theories of monopolistic competition and "rents" due to heterogeneity.

However, what really altered the notion of rent was the formulation of the marginal productivity theory by J. A. Hobson and J. B. Clark, who set out to show that the law of variable proportions meant that increments of any homogeneous factor would generate an infra-marginal producer's surplus attributable to the whole of that factor.

In the next few sections we shall see how the concept of rent became muddled by transferring it from its application to land, where the meaning was clear, to labor and capital, where the meaning was obscure. This state of confusion arose in the 1890s, when there was popular agitation for the taxation of economic rent. Large-scale owners of urban land, mines, and forests had a strong motive to enlist economists in obfuscating the issue in order to avoid facing a greater tax burden. Economic thought today is still plagued by a blurring of boundaries regarding factor productivity. The following features characterized the new ways of defining rent that emerged in the 1890s:

- (1) Rent was identified with infra-marginal producer's surplus generated by homogeneous factors (the marginal productivity

theory). Rent came to be identified with “producer’s surplus” (value of infra-marginal product minus value of marginal product) from labor and capital, not just land.

- (2) Rent was seen as a surplus of factor price over opportunity cost, which, in the case of homogeneous factors (labor and capital), is essentially a disequilibrium phenomenon—supra-normal profit.
- (3) Rent was due to differential advantage arising from heterogeneity of factor inputs.
- (4) The word “rent” was applied even to consumers’ subjective infra-marginal surplus.
- (5) Rent was to be distinguished from quasi-rent by the flux of time.

1.8. Rent in Marginal Productivity Theory

The revolution in rent theory began in 1891 with two articles in the *Quarterly Journal of Economics* by John Bates Clark and J. A. Hobson. These authors present the marginal productivity theory as a generalization of Ricardo’s law of rent to all three factors of production. Diminishing returns is reformulated as the law of variable proportions, and land rent ceases to be distinctive. As J. B. Clark (1891: 300) explained, the rent of land was no longer something unique:

Labor and capital, in current theories, are the antithesis of the typical rent-producer, land. Yet wages in the aggregate constitute the income derived by society from its entire fund of pure labor energy; and interest is, in like manner, the product of a fund of pure capital. Both are differential gains, and are completely amenable to the Ricardian law.

Various criticisms were made at the time of J. B. Clark’s version of the marginal productivity theory. In addition, Gaffney (1994: 49–50) provides evidence that Clark’s motives for pushing his concept of capital and its “rent” were more political than scientific.

The first criticism of J. B. Clark’s analysis was that he confounded the rate of interest with the rents and quasi-rents received by land and capital (Fetter 1914: 85; 1977: 244; Rothbard 1977: 5). In classical theory, there was no confusion of interest with profits. Adam Smith, for example, saw interest as an indirect, rather than original, income. Interest was fundamentally a sharing of other people’s profits or revenues.

Second, Böhm-Bawerk (1907: 28–47) criticized J. B. Clark's flawed attempt to find "pure capital" by aggregating capital values, which depend on a rate of interest that a quasi-physical fund is supposed to determine. In this respect, Böhm-Bawerk foreshadowed the Cambridge capital controversies 60 years later. But for our purposes, the crucial problem was Clark's identification of the rent concept with infra-marginal surplus received by each factor of production.

J. B. Clark (1891: 305) states that "each earlier worker creates a surplus over and above the amount created by the last one, and the sum of all these surpluses is the rent of the fund." The problem is that labor is assumed a homogeneous input; there is therefore no "earlier" and no "later" worker. We must talk of the marginal product of 10 workers, not the marginal product of the 10th worker. Every worker, every unit of capital is "marginal." J. B. Clark (1891: 308–309) admits this, yet he insists on calling this surplus a "rent" analogous to Ricardo's land rent. Collier (1975: 212–215) has pointed out the conceptual problem of applying the word "rent" to the earnings of individual units of a homogeneous factor. The problem was also recognized by Hobson (1909: 59–60, 127).

However, in Ricardo's theory, land inputs are not homogeneous. We can isolate the surplus and talk of the rent of the third acre, say, brought under cultivation. Rent is a surplus due to heterogeneous qualities of land whether of fertility or location. It is *assignable to individual units of land in a way that aggregate infra-marginal surplus of labor or capital is not*. Each unit of these homogeneous factors must be paid the same factor price. Moreover, if the aggregation of capital goods raises problems, the aggregation of heterogeneous land raises more (Hawtrey 1960: 114–124).

In his reaction against Ricardo's neglect of a theoretical explanation of demand for inputs and prices paid for them, Marshall (BK 6, Ch. 2, §1, ¶2) was wise to assert, that

too much insistence has been laid on the fact that the earnings of every agent of production come from, and are for the time mainly governed by the value of the product which it takes part in producing; its earnings being so far governed on the same principle as the rent of land; and some have even thought it possible to constitute a complete theory of Distribution out of multifold applications of the law of rent. But they will not reach that end.

The marginal productivity theory provides a valid account of the determination of wage rates and other factor prices, and it explains the mix of inputs chosen by a firm. It does not explain the size of the labor force or the aggregate amount of capital in a society. Classical writers had turned to land as the one factor for which supply was determined exogenously—independently of economic activity.² That fixed point of reference made possible macro-level theories of the aggregate supply of labor or capital. Treating the supply of all factors of production, including land, as endogenously determined, as marginal productivity theory claimed to do, overturned a century of work in understanding the economic system.

1.9. Paretian Rent

As we have seen, the marginal productivity theory is an outgrowth of Ricardo's reasoning in regard to the intensive margin wherein successive doses of one homogeneous factor (labor cum capital) are applied to a fixed quantity of another (land), raising its marginal product. The law of variable proportions simply put all three homogeneous factors on this same basis and thus determined distribution by the rent law.

However, Ricardo's reasoning with regard to the extensive margin implied that rent arose because land was not homogeneous (i.e., it was of different qualities). This view was echoed in J. S. Mill's (BK III, Ch. 5, §4, ¶15) remark that

[w]ages and profits represent the universal elements in production, while rent may be taken to represent the differential and peculiar: any difference in favor of certain producers, or in favor of production in certain circumstances, being the source of a gain, which, though not called rent unless paid periodically by one person to another, is governed by laws entirely the same with it. The price paid for a differential advantage in producing a commodity, cannot enter into the general cost of production of the commodity.

The importance of this identification of rent with differential advantage is that it points to the two causes—heterogeneity and disequilibrium—that can occasion what is often called “Paretian rent,” which defines rent as the surplus a factor earns over its transfer price or opportunity cost (value in another use). This concept emerged out

of the controversy over whether or not rent enters into price (Robinson [1933] 1954: 102–107). The earnings of opera singers and star athletes are stock examples used by economists to demonstrate “Paretian rent.” But these examples show the weakness of the idea. Even the best opera singers and basketball players require years of sustained practice and training, which shows that the returns to “natural” talent cannot be divorced from hard work.

The term “Paretian rent” has an interesting history that reveals a great deal about the confusion surrounding redefinitions of rent in the 20th century. Contrary to what the name would suggest, it does not come from Wilfredo Pareto. According to Bird and Tarascio ([1992] 1999: 474):

The term “Paretian” rent first appears in economic literature in a review article by D.A. Worcester (1946). Worcester delineated three branches of development for rent theory. These branches were labeled (a) classical, (b) neo-classical, and (c) Paretian. . . . “Paretian” rent then was defined by Worcester as any return above transfer price. Significantly, Worcester did not directly cite any of Pareto’s works in connection with his definition of “Paretian” rent. Instead, he cited Joan Robinson as a secondary source for the concept. Examination of the cited sections of Robinson’s “Economics of Imperfect Competition” reveals a definition of “transfer price” or industry perspective rent concept, but nowhere is there any reference to Pareto, or Pareto’s rent theory. She traced the rent concept she used to G.F. Shove, whom she credited with originality in the matter. . . .³

In addition to the other questions about this term, Paretian rent only exists under specific restricted conditions. According to Worcester (1946: 269), if all the factors of production are homogeneous and the system is in equilibrium, Paretian rent cannot arise, since all units of each factor will have the same transfer earnings at the level of the firm. Only if we extend our view to the industry or the economy generally do Paretian rents appear. However, this is no advance on Adam Smith’s insights into rent. It is simply another way of stating that the ability of rent to enter into price depends on the alternatives open to the factor.

Worcester (1946: 259) recognizes that the Paretian concept of rent “seriously impairs the meaning of the word” and suggests that “Paretian rent” be discarded in favor of the term “factor profits” for the surplus returns to productive agents over and above opportunity

costs. Worcester (1946: 269, 271) also suggests that rent is best defined as the opportunity cost of land at the level of the firm. The suggestions appear quite sensible and are quite in keeping with Adam Smith's analysis of when rent does and does not enter into price. It will be recalled that what Smith called the natural rate of land rent is its competitive rental as determined by opportunity cost, and what he called the monopoly rent of certain vineyards in France was their "factor profit" over the returns in alternative uses. Moreover, Smith, by taking the social point of view, was able to consistently hold, as did Marshall (BK V, Ch. 10, §3, ¶13) and most advocates of the Paretian concept, that rent of land is not a cost of production to society as a whole.

Thus the Paretian concept of "rent" seems to amount to little more than the statement that factors are not homogeneous nor is an economic system always in equilibrium. Those concepts have no necessary connection with land rent as a surplus over real cost. It does seem best to use different words for different ideas, and to recognize that "opportunity cost" concepts are not substitutes for "real cost" concepts.

1.10. Consumers' Surplus as Rent

In the identification of the concept of surplus with rent towards the end of the 19th century, Alfred Marshall in the first three editions of his *Principles* designated consumers' surplus as "consumers' rent." Marshall's (BK III, Ch. 6, §2, §3, fn. 87, fn. 88) motivation for this terminology was the analogy with producers' surplus or rent in the familiar partial equilibrium supply and demand analysis. However, in later editions, Marshall abandoned the term. One senses that this abandonment is due to Marshall's (App. K, §2, ¶8) desire to emphasize that the surpluses of material agents other than land disappear in the long run, whereas "from a social point of view, land yields a permanent surplus, while perishable things made by man do not." That view is the same as the Physiocratic notion of land rent as the unique surplus. It is interesting, and perhaps ironic, that J. B. Clark (1907: 172–173) was also critical of the concept of "consumers' rent."

1.11. Rent and Quasi-Rent

The concept of quasi-rent was developed by Marshall ([1890] 1961: 9) as a natural adjunct to his wrestling with the question of whether or not rent enters into price. If one adopts the social point of view and the time period is so short that the supply of humanly-produced equipment cannot be altered, then the rental prices of land and capital goods are on a par. Neither payment represents a real cost of production, as the agents of production are already in existence, and factor payments on the basis of opportunity cost are simply a means of allocating a scarce supply of fixed factors to the most productive uses. Hence, in the short run, the rental of capital goods is a quasi-rent because it is not a real cost of production. In the long-run, however, as Marshall (BK V, Ch. 10, §1 ¶4, §3 ¶12) points out, this is not so: efforts and sacrifices are required to replenish, renew, and expand the stock of capital goods.

Marshall's use of the term quasi-rent has an advantage in clarifying the ambiguous use of "interest" for both "interest payments" and "rate of interest" by J. B. Clark (1891: 289), who claims that "interest as a whole is rent." Marshall (BK II, Ch. 4, §2; BK V, Ch. 8, §6) makes it clear that the value of the existing stock of capital goods does not determine the rate of interest but *vice versa* through capitalization of quasi-rents. Nevertheless, Clark's appalling conflation (perhaps intended obfuscation) of "capital" with "capital goods" via capitalization of value continues to bedevil economic thought to this day.

Quasi-Rent and Capital Sunk in Land

Adam Smith (BK I, Ch. 7, ¶2) remarked that the rent payable for a unit of land was partly regulated by the "natural or improved fertility of the land." That raised the question whether the rent of land could conceptually be distinguished from the quasi-rent of capital sunk in the land. Smith answered affirmatively. Smith (BK II, Ch. 1, ¶16) included in his definition of capital "improvements of land . . . what has been profitably laid out in clearing, draining, enclosing, manuring, and reducing it into the condition most proper for tillage and culture." Smith (BK I, Ch. 11, ¶36) also stated that augmented rents

due to improvements by landlords were but a return to capital. Where, however, a landlord demanded an increased rent due to alterations in fertility due to capital sunk in the land by a tenant, this was indeed land rent because Smith (BK I, Ch. 11, ¶2; BK III, Ch. 2, ¶14) assumed that tenants on long leases would only sink capital into land if they could recover capital plus profit before the expiration of the lease—a conclusion in keeping with the notion that rent is a surplus over real cost. Interestingly, New Zealand land valuation law echoes Smith's view that capital sunk in land is generally recoverable as a terminable annuity and that not all the effects of land improvement are attributable to those improvements but to latent qualities of the land itself (Pigou 1947: 150; Walker 1883; F. S. Ogilvie 1930: 13).

Ricardo (Ch. 2, ¶17; Ch. 19, ¶13), however, saw rent as the principle of differential productivity and hence allowed that superior machinery could earn a rent. Ricardo (Ch. 18, ¶6) also modified his definition of rent and suggested that what is today described as the quasi-rent of capital sunk in land was “strictly of the nature of rent” in spite of his recognition that such capital earned profits *ex ante* and earned quasi-rent *ex post*. Essentially, Ricardo has no clear concept of quasi-rent and assumes that capital sunk in land is not subject to obsolescence or physical deterioration and yields a perpetual, not a terminable, annuity.

Mill (BK II, Ch. 16, §5, ¶2), while maintaining that the owners of existing fixed capital on land will receive quasi-rents equivalent to interest on the replacement cost of such capital, followed Ricardo “with regard to capital actually sunk in improvements, and not requiring periodical renewal, but spent once for all in giving the land a permanent increase in productiveness.” Like Ricardo, Mill (BK II, Ch. 16, §5, ¶2) classified *all* the return to such improvement as rent:

I cannot think that the incomes of those who own the Bedford Level . . . ought to be called profit and not rent because those lands would have been worth next to nothing unless capital had been expended on them. The owners are not capitalists, but landlords; they have parted with their capital; it is consumed, destroyed.

In making this argument, Mill may have been anxious to refute those who claim all rent is really a return on capital and therefore chose the

reverse position. However, Mill did not explain how “consumed, destroyed” capital can be capital “not requiring” renewal and giving a “permanent increase in productiveness.” He seemed to equate the spending of money with the destruction of capital. Mill was also incorrect in asserting that these undrained lands “would have been worth next to nothing.”

As Campbell (quoted in Pigou 1947: 150), formerly New Zealand Valuer-General, explains of such land drainage schemes:

It is the actual improvement which is valued, not the effect of that improvement. For instance, suppose that the expenditure of a small sum in cutting an outlet for water has converted a swamp into first-class agricultural land. The fact that the swamp was capable of easy drainage would enhance its unimproved value, and the cost only of cutting the drain would be valued as the improvement.

Marshall (BK V, Ch. 10, §1, ¶4) correctly states that capital sunk in land earns quasi-rents, not rent, which is the solution to Ricardo’s and Mill’s difficulties, though it is not clear whether Marshall believed there were capital improvements that yielded a perpetual return at no more than the current rate of interest (F. S. Ogilvie 1930: 13; Hollond 1930: 379).

The significance of this debate over whether capital sunk in land earns profits (quasi-rents) or is rent in the strict sense lies in the attempt of some writers, notably Carey and Bastiat, to argue that land rent is nothing but the quasi-rent of sunk capital. In Bastiat’s ([1870] 1996: Ch. 9, ¶16; Ch. 13, ¶7) case, the argument was used to defend private property in land. The answers to this argument can now be seen:

- (1) Capital sunk in land generally deteriorates (the principle of terminable annuities stated by Smith and Walker).
- (2) It may become obsolete and detract from land value, rather than add to it (Marshall, BK VI, Ch. 9, §4, ¶ 4).
- (3) Its replacement cost generally falls over time, as new construction techniques are developed.
- (4) The inherent and latent powers of the land are wrongly attributed to the capital that unlocks them (an understandable error in view of Ricardo’s “original” powers of the soil).

- (5) The public value of land is confounded with the private value due to capital sunk in the land by tenants or landlords. (Consider here Mill's (BK II, Ch. 16, §5, ¶ 3–6) critique of H.C. Carey.)
- (6) Capital expenditure is compounded forward at a rate of interest that ignores the returns received from that capital investment (Marshall, BK VI, Ch. 9, §4, ¶ 4). (However, elsewhere Marshall ([1890] 1961: 204–205) himself makes a similar mistake in discussing state investment in land.)

The conclusion is then that the rent of land is indeed distinguishable from the quasi-rent of sunk capital and that Adam Smith's statements to that effect have never been successfully controverted.

1.12. Rent as Reward for Risk

It has sometimes been asserted that rent is a reward for risk, that speculation in land is productive and must be rewarded. Naturally, such a view has implications for the desirability of taxing what it alleges is in fact an earned, rather than an unearned, increment.

There are several variations on this theme:

- (1) The landowner "performs a very important productive service. He finds, brings into use, and then allocates, land sites to the most value-productive bidders" (Rothbard [1970] 2009: Ch. 12, §8, §§E, 935). "As in other industries—if not quite so much as in other industries—the speculator is useful in finding a market for the article" (Edgeworth 1906: 72). Alchian and Allen (1964: 119) also confirm this view.
- (2) The discovery of natural resources (e.g., minerals) is a service for which rent is the reward in a risky endeavor.
- (3) "Owners of land that is not in active use perform services. . . . They hold the land while it is ripening into use. . . . The ripening process is a part of the productive process in land utilization. . . . It would be in the end a waste to put upon this land inferior buildings which would have to be torn down" (Ely 1922: 250–251). This argument, reiterated by Rothbard ([1970] 2009: Ch. 9, §2, §§C, 570–572), applies equally to the owner of minerals in deciding the timing of extraction.

- (4) Another argument is that the unearned increment is an incentive to build. According to Adams (1916: 280):

In many instances, buildings are not depreciated at all, the owners counting upon the increment in the land value to balance the depreciation of the building. . . . The consumer of the product gets the benefit through a reduction in the cost of production represented by uncharged depreciation.

A. S. Johnson ([1914] 1917: 137) made a similar argument. Thus the rent of land represents a risk premium necessary to induce capital to assume the concrete form of a building.

- (5) Marshall (BK V, Ch. 10, §2, ¶9; ([1890] 1961: 496, 799) put forward the argument that in a new country the prospect of the unearned increment was in fact a necessary reward for the settlers' enterprise:

A settler often takes up land with the expectation that the produce which it affords while in his possession will fall short of an adequate reward for his hardships, his labor and his expenditure. He looks for part of his reward to the value of the land itself, which he may perhaps after a while sell to some newcomer who has no turn for the life of a pioneer.

Elsewhere Marshall ([1890] 1961: 467) noted that when the land is all taken up, the desire to obtain its title no longer acts as a motive to further improvement and to further production. This argument was also put forward by several other economists (A. S. Johnson 1902: 32; Bullock 1917: 131–133; J. B. Clark 1899: 85–87; Adams 1916: 279).

- (6) Finally, the argument is advanced in a general form that parcels of land are risky assets (values may fall as well as rise) and that private property in land allows individuals to allocate these risks in the best fashion. (Alchian and Allen 1964: 119; Blaug 1968: 88–89).

All of these arguments are incorrect, misleading, or grossly overstated. I shall respond to them in the same order they are presented above.

- (1) The first argument, that landowners provide a service by allocating land to its best use, confounds the personal and functional

receipt of income. Rent is a demand-determined price and it is the bids of users that allocate it, with the aid of real estate brokers. The landowner can and often does play a purely passive function, which would be an impossibility if landowners were essential for efficient allocation (George 1898: BK III, Ch. 15, ¶5). The allocation function *is* severable from ownership. Moreover, speculation in land, unlike speculation in commodities, does not serve the social function of encouraging production (George 1879: BK IV, Ch. 4, ¶13, 14; Marshall, BK V, Ch. 10, §3, ¶13). Issues related to land speculation will be considered in Chapter 5.

- (2) As for the argument that rent is a reward for exploration and discovery of mineral resources, this is akin to the argument that depletion allowances are necessary to reward mining investment. One would expect the risk element to be accounted for in the required rate of return of capital invested in mining ventures. No one seriously maintains that Christopher Columbus required title in perpetuity to the Americas before he set off exploring and yet this is the logical *reductio ad absurdum* of the argument that rent is the necessary reward for discovery. Moreover, the fact that prospectors pay for the rights to explore disproves the contention that rent is produced by discovery, for in such cases a clear net return is enjoyed by passive landholders who neither risk nor search (Gaffney 1967: 383–388; Carlton 1907: 60; H. G. Brown 1917: 471).

In fact, one could argue that, from a social point of view, allowing rent to be appropriated as the reward of discovery misallocates resources. Too much may be spent exploring for mineral resources rather than developing existing deposits. Such a criticism would be analogous to that sometimes levied against the patent system, which may encourage research in an area and then stifle it once the first patent in that field is granted (Rothbard [1970] 2009: Ch. 10, §7, 752). In any case, the analogy with patents would suggest that if rent is to be the reward for discovery it need not be so for more than a limited number of years (H. G. Brown 1953: 301–304).

Allowing this “discovery” argument to become the basis of public policy has engendered serious social problems. Since

1980, the evils of patents have become more obvious as they have become entrenched through the World Trade Organization treaties that ostensibly promote freer trade. The price for “free trade” has been that many countries have been forced to extend both the duration and scope of patent protection. The use of patent licensing to withhold life-saving drugs (for example, for AIDS sufferers in poor countries) and the patenting of existing or modified biological material, including human genetic material, have aroused legitimate doubts about the morality and efficacy of such “property rights.” To hold the patent rights to the sole cure for a new genetically-manufactured infectious disease would be the ultimate exercise in socially destructive “rent-seeking.”

- (3) Ely’s argument that landowners perform services by holding land out of use and waiting to commit it to a superior use simply amounts to the contention that in equilibrium the value of unused natural resources must be rising at the current rate of interest. This is true, but does not prove that rent is a reward for productive service. Rather, it raises the important question of whether this important function of temporal allocation can be performed by a neutral, public process, such as land value taxation. We shall later investigate whether land value taxation is neutral and/or optimal in its effect on the timing of the use of natural resources.
- (4) The argument that the unearned increment is an incentive to build is clearly wrong. In the first place much building takes place on leaseholds where the builder will not receive the increment. More important, there is no necessary connection between the increment in land value and the depreciation of a building on it. It is simply not necessary for a landowner to accept a subnormal return to capital in order to gain any increment, unless some kind of improvement is necessary to retain title (Anderson 1914: 811–812; Davenport 1917: 17–18; Haig 1915b: 837). In the latter case, the result is a misallocation of resources, as we shall see later.
- (5) The suggestion of Marshall and Clark that land rent in a new country was a necessary reward for settlers had previously been

considered by Wakefield, John Stuart Mill, and Henry George, all of whom had seen its fundamental defect, namely, that there was no reason to expect an optimal pattern of settlement to result from guaranteeing settlers a private gain from land rent.

As J. S. Mill (BK V, Ch.11, §12, ¶38) put it in his chapter “On the Grounds and Limits of the Laisser-faire or Non-Interference Principle”:

[T]he Wakefield system of colonization . . . is grounded on the important principle, that the degree of productiveness of land and labor depends on their being in a due proportion to one another; that if a few persons in a newly-settled country attempt to occupy and appropriate a large district, or if each laborer becomes too soon an occupier and cultivator of land, there is a loss of productive power, and a great retardation of the progress of the colony in wealth and civilization. . . . Mr. Wakefield therefore proposed to check the premature occupation of land and dispersion of the people, by putting upon all unappropriated lands a rather high price, the proceeds of which were to be expended in conveying emigrant laborers from the mother country.

Bastiat ([1870] 1996: Ch. 9, ¶241–244) discussed how the Swan River Colony actually failed in this manner. J. S. Mill defended Wakefield’s proposal by pointing out that the “free-rider” problem would otherwise operate and individual profit maximization would not coincide with a social optimum.

Marshall (BK V, Ch. 10, §2, ¶9) seems to have viewed the conversion of land from prairie to farmland as the “production” of land. That surely conflated the creation of value through physical production with the emergence of value when a good ceases to be free. By that distorted logic, any diversion of land to a higher and better use “produces” land and hence all rent is “produced” (H. G. Brown 1931a: 400).

Wakefield’s system was, in fact, adopted in the settlement of South Australia, though one may also question whether the policy of putting an artificially high price on land was optimal. A better policy was suggested by James Mill (1826: BK IV, Ch. 5, ¶8–9), namely, the reservation of rent as state revenue, which would not have distorted marginal rewards to capital and labor in *either* direction. This is considered in Chapter 5.

It was this distortion of factor rewards caused by the unearned increment that caused Haig, Davenport, and H. G. Brown to question the idea that rent should be regarded as a reward to risk. They pointed out this could only be so at the social cost of a misallocation of resources (Haig 1915b: 840; Davenport 1917: 23–26; H. G. Brown 1924b: 380–381; 1931a: 395–400).

Henry George seems to have concurred with J. S. Mill that holding land to obtain the unearned increment would lead to a suboptimal pattern of settlement, but George went further. He suggested that even in a settled community the pursuit of the unearned increment would lead to a suboptimal distribution of population—overcrowded cities and sparsely populated rural areas (George 1879: BK 9, Ch. 3, ¶6; 1883: Ch. 21, ¶2–3). His reasoning appears to be based upon the preemptive motive for land acquisition discussed by J. S. Mill, with later generations in an old country being in the same position as later settlers in a new country (George 1879: BK IV, Ch. 4, ¶8–9, 12).

- (6) The general argument that land is a risky asset and the private receipt of rent is necessary to ensure the proper allocation of risk seems to fail on several counts.

In the first place, all factor incomes are uncertain in the future, so what is unique about rent?

In the second place, as Turgot pointed out, money invested in land brings in a lower rate of return precisely because land is not a risky investment (Turgot [1788] 1973: 170).

Finally, if we conceive of risk not as the variability of factor returns *per se* but rather as the possibility that a factor will be locked into a lower return and unable to benefit from a rise in its reward, then it is capital, not labor or land, that bears risks. As Ely remarked, it is the “inferior buildings which would have to be torn down” if land is inappropriately developed. It is thus the capital on the land that bears the special risk of obsolescence (Gaffney 1972b: 244; Wicksell [1893] 1954: 103, 115, 146–147; Rothbard [1970] 2009: Ch. 7, §4, 479, 485–486). The land can always be salvaged and turned to its highest and best use. Capital must accept its quasi-rents, which may diverge sharply from the return to free or uninvested capital.

Thus it can be seen that rent is not the return to risk. The discussion has, however, raised serious questions as to the nature of land speculation. It has become apparent that the term covers two ideas: the first is that land speculation, like speculation in general, simply guides or holds land for its highest and best use and is therefore socially useful (Ely 1922: 250–251; Edgeworth 1906: 72–73). It will be shown later that land value taxation is neutral with respect to speculation of this kind, which is warranted by the normal marginal conditions of optimization.

However, the second idea of land speculation is that of the unearned increment as making up for otherwise unprofitable investment decisions (Haig 1915b: 840). This is the kind of speculation that Wakefield, J. S. Mill, Henry George, H. G. Brown, and others have accurately stigmatized as socially wasteful, particularly where it represents an attempt to establish monopoly market power by controlling non-reproducible natural resources in advance of real demand.

If it can be shown that land value taxation is neutral with respect to the first kind of speculation but discourages the second kind, then the apparent conflict in the literature as to the relationship between land rent taxation and land speculation will have been resolved. It is my intention to show that some, at least, of the classical advocates of land rent taxation understood something of this distinction, which explains why they could hold that land rent taxation could be “unshiftable” and yet “non-neutral” at the same time. Indeed, they saw it as “super-neutral,” insofar as they alleged it would cure an existing bias towards resource misallocation.

1.13. Rent as Rental

Towards the end of the 19th century, the classical division of rent, profit, and wages as the rewards of land, capital, and labor, respectively, was gradually abandoned. The classification that began to replace it designated “rent” or “rental” (conceived as time payment for factor services) as the reward of *all* material agents of production (considered as “mass”) as contrasted with wages as the reward to the human factor. In other words, land was being removed as a separate factor of production and being subsumed under the all-encompassing term “capital.” It is to this trend in thought, pioneered by John Bates

Clark (1895: 271–272; 1899, 192), that we owe the ubiquitous “production function,” in which income or output is a function or product of only two factors, labor and capital, or $Y = F(K,L)$.

According to Fetter ([1927a] 1977: 126–128), this assimilation of land into capital was largely a response to the “single tax” proposal of Henry George. Defenders of the status quo, who held all property sacred, were wont to assert that “capital vests itself in land” (which was Clark’s way of looking at “pure” capital). They concluded that landed property was as sacred and untaxable as humanly-created property. J. B. Clark’s speech (1890: 24–25) at Saratoga exemplifies this. Socialist opponents agreed with this conflation of land and capital, but they drew the conclusion that both land and capital were equally worthy of nationalization (Olivier 1891: 2–6).

The arguments that were advanced for the assimilation of land into capital may be summarized as follows:

- (1) Capital is a fund of value. We must adopt the point of view of the individual entrepreneur and see land as one possible financial investment (Clark 1891: 292, 307; 1895: 264–265; 1899: 337; 1907: 159–160, 166).
- (2) In the static state, there is no abstinence; capital is a permanent, imperishable fund that earns rentals in its material, embodied forms. The ratio of these rental value flows to the value of the fund establishes the rate of interest (J. B. Clark 1891: 289, 297, 300–303, 311; 1895: 257–260, 269, 275; 1899: 117–133).
- (3) Rent is rental—the price of the flow of any productive service, whether made by people or given by nature. Interest is not a phenomenon peculiar to produced capital, rather it is *agio* or time-discount that applies to all factor returns. Hence the old distinction that land earns rent, and capital earns interest is meaningless (Fetter 1904: 177–180, 193–196; 1914: 85–86; 1927b: 82; 1977: 129, 370–371; Rothbard 1977: 23; Schumpeter 1954: 931–932; Knight 1928: 368; 1938: 74).
- (4) Land is produced under economic conditions. Investment in land earns profits in no way different from other individual investments (Fetter 1900: 41; Cannan 1930: 78–79; Knight 1938: 77; Buechner 1976: 606–609).

- (5) All capital goods involve a fusion of valuable natural resources with embodied labor; hence we cannot think of capital as reducible to labor. Capital goods are, in fact, partly land, which continues to yield land services even though embodied in a capital good (Fetter 1900: 36–39; 1901: 418–423; 1904: 187–190; 1914: 86–87; 1917: 34–35).
- (6) “The entire notion of ‘factor of production’ is an incubus on economic analysis, and should be eliminated from economic discussion as summarily as possible” (Knight 1938: 81).

These arguments for treating land as capital as advanced by Clark, Fetter, and Knight have had an enormous influence on economic theory. That influence is regrettable because the arguments are fundamentally misleading, as Böhm-Bawerk, Marshall, and Taussig well saw. In the light of the subsequent Cambridge capital controversies, Böhm-Bawerk’s telling judgment is worth recalling: “J. B. Clark’s concept of ‘true capital’ leads to aberrations far more subtle and deceptive and for that very reason far more dangerous” (Böhm-Bawerk [1889] 1959: 55).

Let us now consider why the assimilation of land into capital cannot be justified on the grounds suggested above:

- (1) J. B. Clark’s identification of capital goods with capital value is a misuse of metaphor (Böhm-Bawerk [1889] 1959: 56–62; 1895a: 121–122, 129; 1907: 30). It amounts to reasoning in a circle and does nothing to explain the origin of interest. The marginal productivity theory explains the determination of rents and quasi-rents, not the rate of interest (Böhm-Bawerk 1907: 34, 38; 1895b: 385–386). In fact, J. B. Clark’s (1895: 277) inclusion of land in a fund of capital that determines the interest rate represents a sad loss of the insight of Turgot and Adam Smith that the causality runs in the other direction: rents are capitalized at the rate of interest to give the value of land (Turgot [1788] 1973: 149–150; 173; Smith, BK II, Ch. 4, ¶17). Logically, the existence of what is to be valued in exchange precedes valuation, or as Carver (1908: 116; [1904] 1913: 113–114) put it: “A quantum of value is no more capital than a quantum of weight is pig iron.”

As for the assertion that economic definitions must follow those of the individual businessman, its absurdity becomes apparent when one asks whether this fund of capital is to include capitalized monopoly privileges (Carlton 1907: 56, 58; Marshall, BK V, Ch. 9, §2). Tariff quotas used to have saleable values in Australia but it would be hard to describe them as “capital”—they were the capitalized rights of privilege to restrict competition. They are a form of “anti-capital” bearing to it much the same relation as anti-matter to matter in physics.

- (2) J. B. Clark’s assertion that, under static conditions, capital is permanent, like land, begs the obvious question as to why the designation of factors of production should be chosen with reference to static states when the real world is obviously dynamic (Böhm-Bawerk 1895a: 126). J. B. Clark (1895: 271; 1907: 180–181, 188–189) himself admitted that in a dynamic state land is distinguishable from capital, by reason of permanence and fixity of supply. Carlton (1907: 52) also insisted that “a line of demarcation must be drawn between land and capital” in terms of dynamic stability.

There is another confusion in J. B. Clark’s fund concept of capital. Capital, Clark (1891: 297) tells us, has its genesis in abstinence, and interest is the reward of abstinence. However, Clark (1895: 269) adds, it is only the creation of capital that represents abstinence, not its conservation.

These postulates provoke two questions: First, in what sense does abstinence create land? Second, in the static state the amount of capital does not change, which implies there is no abstinence (J. B. Clark 1891: 301). In that case, why is there a positive interest rate at all?

It was Taussig (1908: 339, 343) who observed the crucial importance of this assertion that “abstinence is confined to the genesis of true capital,” which struck him as “fundamentally untrue,” since capital has to be constantly renewed. Rothbard ([1970] 2009: 401) also saw this. The effect of Clark’s reasoning, according to Taussig (1908: 351–352), was to treat capital as if it were ready-made: “Land and capital are treated as if their

conditions of supply were the same." In short, the assimilation of land into capital obscures the vital distinction between rent and quasi-rent.

- (3) The third assertion is a) that rent must be seen as rental, the price paid for the flow of any productive service, and b) that interest represents a time discount. The substance of these contentions is valid, but we may want to distinguish among the types of physical inputs that earn these rentals on the basis of whether the payments are necessary to elicit factor supply. Marshall's (1893: 76; [1890] 1961: 494) concept of quasi-rent does precisely this. Alternatively, we may distinguish between land and capital goods by noting that all commodities are reducible to embodied inputs of land and labor—the original factors. Capital earns only its cost—the *agio* of time discount, whereas land and labor earn net incomes (Rothbard [1970] 2009: Ch. 7, §4, ¶1–4, 479, 485–486).
- (4) The notion that land is produced under economic conditions seems to have three possible interpretations:
 - (a) That the efforts and sacrifices of individual landowners have been sunk into the land, which is really capital. This is a reincarnation of the Carey-Bastiat thesis and depends on the substitution of personal opportunity cost (differences among competing investments) in lieu of real cost (Buechner 1976: 607). The individual viewpoint is substituted for the social. Slavery and piracy were carried on under economic conditions and doubtless returned higher rates of profit to individuals than alternative investments, but we may still doubt whether they produced manpower or wealth.
 - (b) Cannan (1930: 79) treated an increase of land value due to growing markets and publicly financed infrastructure as though it were production of land. National income accountants would find this view rather startling.
 - (c) A simple refusal to acknowledge the old definition that capital is the produced means of production, describing capital improvements that physically alter land as "producing land." This is a matter of semantic preference: it

implies nothing about the validity of the old definition. Marshall ([1890] 1961: 482, 567) objected to such semantic redefinition.

- (5) The assertion that all capital goods include embodied natural resources may or may not be true, depending on whether we agree with Marshall that there is a no-rent margin in the production of goods. Certainly, gold and diamond jewelry suggest themselves as examples where the value-added component may not be so large in relation to the value of the land input. Theoretically, the answer to this problem seems to be the further pursuit of imputation; practically, one is entitled to question its significance. As Locke ([1689] 1764: §§40–43) and Smith (BK I, Ch. 6, ¶14) observed, by far the greater part of the value of goods represents value added.
- (6) To discard the notion of several distinct factors of production in favor of the notion that capital is the only factor of production, in the form of a fund of value, is, surely, “a confusion of no mean proportions between physical and value concepts” (Ben Seligman [1962] 1971: 654). Furthermore, conflating all factors of production into a form of capital permits deceptive use of the fact that securing property rights in capital is socially beneficial. As Plassmann and Tideman (2004: 512–513) observe: “Even if no effort is made to secure original property rights in land, the same amount of land will still exist. But if no effort is made to secure original property rights in capital, little if any capital will be produced. Combining land and capital into a single category obscures this fact, and makes it difficult to notice that the original acquisition of property rights can entail social inefficiency.”

Similarly, H. G. Brown (1943: 351–353) argues, merely paying the cost of acquiring title to a lake does not mean there has been a

service to the community from this acquisition, nor any service to future users of the lake who must pay large annual sums for permission to use it. Whatever the advantages to commerce of Lake Michigan and of its harbors, these advantages are not services rendered by the owner (or owners) of the lake. They are not due to his effort. They are not the consequence of his construction of capital. They do not result from and are not enhanced

by his rowing three times around the lake and performing the specified incantations nor by such action on the part of any ancestor or other previous holder of title. The difference between receiving private income from such "property" and from capital which one's own productive effort and saving have made possible is fundamental and profound.

Others have made similar arguments against J. B. Clark. Simon Patten (1891), for example, argues that by bundling capital, labor, and land into one entity, this overlooks how monopolists and rentiers add to the cost of living without adding anything productive to the economy. Under the "bundling" approach, income appears justified regardless of its social effects (Hudson 2011).

Ultimately, the attempt to assimilate land into capital has failed. It was based on a static state, which ignored augmentability, the conditions of physical supply, and the difference between physical and value characteristics. It did, however, raise interesting questions: Is land to be considered as a permanently given factor of production? If capital is that which must be conserved, then what is the basis for distinguishing capital from exhaustible resources, whether renewable or nonrenewable? Is rent exclusively a payment for the "original and indestructible powers of the soil?" (Ricardo: Ch. 2, ¶2).

The Definition of Land

We have chosen to restate the definition of rent in terms of the traditional division of the factors of production into land, labor, and capital. We have also followed Böhm-Bawerk ([1889] 1959: 48–49) in seeing the distinction between land and capital as that between the free gifts of nature and the produced means of production:

Land and other capital goods in many important respects travel different ways. The former is immovable, the latter is for the most part movable; the former is a gift of nature, the latter a product of labor; the former cannot be increased, the latter can. . . . Most important of all, when the great social problems are discussed, property in land and property in capital are the subject of attack and defense on two distinctly different fronts.

This approach has not gone unchallenged and before exploring the problems of definition let us set out the possible positions that can be adopted.

- (1) Land cannot be distinguished from capital.
- (2) Land can be distinguished from capital because
 - (a) capital is produced; land is not; or
 - (b) land is permanent; capital is not; or
 - (c) capital is reproducible; land is not.

The argument that land cannot be distinguished from capital has its origins in the observation that all products result from the fusion of land and labor. As Fetter (1917: 35) observed:

It may be said that the distinction between land and capital by the older economists was not made with respect to the *purposes* for which agents of production were used, but with respect to their *origin*, their naturalness, or artificiality. . . . Those goods which were called natural were treated . . . under the land and rent concept and those that were artificial were treated under the capital concept. The material of everything in the world was once "natural". When did it become "artificial"? At what moment did the bit of iron ore, the piece of coal, the piece of wood, the piece of "land," miraculously become capital? Was it at the first touch of man's hand? Then is every cultivated bit of land artificial, and by that token is capital?⁴

Similar arguments are

- that land, like capital, must be conserved, like capital (Fetter 1914: 91; 1977: 250),
- that land and capital goods are valued alike by a process of capitalization (Fetter 1977: 212; Fetter, in Carver et al. 1904: 231; Wicksell [1893] 1954: BK II, §6, p. 163), and
- that advocates of the traditional distinction between land and capital have inconsistently asserted that capital sunk in land becomes land.

In sum, "[t]he attempt to distinguish between the part of the value of a material thing that is due to labor and the part that is due to nature, keeping this nature (or land) and capital distinct, is vain when once the labor has been spent" (Fetter 1900: 39; 1977: 64–65). This amounts to a denial of the ability to impute factor returns, a contention we deny on theoretical grounds. Moreover, we adduce the facts of commercial experience and of more than a century of separate valuation of land and improvements in Australia as direct evidence of the falsity of the contention.

Before examining the question of capital sunk in land, let us examine another basis of distinction between land and capital that attempts to answer these objections. This is the suggestion that land is whatever is permanent, while capital is that which is not, regardless of whether the object is natural or humanly made. Such a distinction avoids the conservation objection and sees a distinction emerging between land and capital in that the former has a capitalized value, but not a cost of production. This distinction has been suggested in part or in whole by Wicksell ([1893] 1954: 98–99, 162–163), J. B. Clark (1907: 188–189), and modern neo-Austrians (Böhm-Bawerk [1889] 1959: 408, n.85; Rothbard [1970] 2009: Ch. 7, §4, 483–488).

However, this attempt to solve the problem generates other problems. We are asked to regard permanent goods such as dwelling-houses, canals, or cleared land, as “land” and yet perishable topsoil, virgin forests, or exhaustible ore deposits would seem to be “capital.” Finally, one could even question whether any resource, natural or man-made, is physically permanent: mountains are continually being eroded, rivers are naturally being silted, just as humans and our tools decay and rust. (Wicksell [1893] 1954: 98–99, 163; Rothbard [1970] 2009: Ch. 7, §4, 483, §6, 499–500; Clark 1907: 180; Böhm-Bawerk [1889] 1959: 408, n.85)

Thus some writers have proposed another basis of distinction between capital and land: capital is reproducible, land is not. This classification has some practical appeal and the U.N. System of National Accounts adopts it as an asset classification. It can then be argued that depletable mineral resources are “land” because they are not physically reproducible but, even if this is conceded, it remains that topsoil and virgin forests must be classified as “capital” (Rothbard [1970] 2009: Ch. 7, §6, 496–499).

For these reasons, the proposed definitions do not seem to be an improvement over the traditional division of land and capital on the basis of which is a non-produced means of production. Only this definition is congruent with the ideas of surplus over real cost, of the free gifts of nature. We must therefore return to face two important questions: 1) Does capital sunk in land become “land”? 2) Can we meaningfully distinguish the value added by labor in a material thing from the value added by nature?

The answer to both these questions is, I suggest, in the affirmative. Adam Smith (II, Ch. 1, ¶16), Henry George (1879: BK VII, Ch. 1, ¶25–27; BK VIII, Ch. 4, ¶10), and Böhm-Bawerk [1889] 1959: 70; 413, n. 9) were, I suggest, correct in asserting that capital sunk in land becomes land. The reason is to be found in the remarks of George that land “is the substance to which labor gives the form” but that such forms are not permanent: “Nature does not proceed from man, but man from nature, and it is into the bosom of nature that he and all his works must return again” (George 1879: BK VII, Ch. 1, ¶26).⁵

In fact, there are no *permanent* improvements to land; there are permanent alterations, perhaps, but is an alteration an “improvement” when a century later it is at best irrelevant or at worst, a hindrance, to the highest and best use to which the land can then be put? Would a plot of Manhattan land perpetually fertilized in 1700 be valued any differently from any other plot for today’s best use, that is, a building? Is a two-story building that has to be demolished for a 20-story building an “improvement,” or is it better described as a “produced hindrance to production?”

What happens to all capital over time is that it either loses its physical form naturally or it is demolished or it is preserved—but only at the cost of continued renewal and repair. Railways and dams are often cited as examples of capital that yields perpetual returns, yet many dams become hopelessly silted in 50 years, while the deterioration of the American railroad beds since the 1930s is known to unfortunate thousands of travelers.

Whether an asset is formally depreciated for accounting purposes or whether, in lieu of depreciation charges, renewals and repairs are treated as current expenses, the underlying reality is the same: all capital goods perish. No investor regards the creation of fixed capital as yielding a perpetuity; rather, the capital investment is viewed as the purchase of a terminable annuity, for the future is uncertain. The materials associated with that capital may one day have to be salvaged and turned to a better use.

As both Adam Smith (BK III, Ch. 2, ¶14) and Henry George (1879: BK VIII, Ch. 4, ¶10) realized, there was no reason for an investor to sink capital irretrievably into land on leasehold unless capital plus profit could be recovered within the duration of the lease. The

example of the Suez Canal being built on a 99-year lease with reversion to the landlord is a good case. No doubt the investors were well aware that there was a possibility (since unrealized) that even this capital work might be abandoned as a means of production if airships as large as sea-going freighters were to mean revenues below canal maintenance costs.

Thus, as capital is form impressed upon matter, when that form is destroyed we may legitimately impute the value to matter: the value of land is its salvage value, which does not necessarily reflect its original powers (Gaffney 1970: 169, 173). With regard to movable goods, the salvage value of their matter is generally infinitesimal (Cairnes 1873: 191–192). (Precious metals and jewels are the rare exceptions.) With immovable property, it is generally the reverse, contrary to Locke's ([1689] 1764: BK II, Ch. 5, §40) view that the value of land is trivial compared to the labor "mixed" with it.

In summary, as Böhm-Bawerk ([1889] 1959, 408, n.85) proposed, the traditional definitions of land and capital still seem to offer "the deepest and most significant line of fissure" between the two categories. As Henry George (1879: BK VIII, Ch. 1, ¶10) offered, the "real and natural distinction is between things which are the produce of labor and things which are the gratuitous offerings of nature." This definition implies that naturally given depletable resources, whether renewable or not, come under the land concept—natural topsoil, virgin forests, mineral ores, and fisheries are all included.

Chapter 2

Practical Aspects of the Rent Concept

Since rent began as the practice of collecting payments from tenants, there was never a time when it was merely a topic of debate among intellectuals. In fact, the debates over the more abstract features of rent grew out of practical experience, particularly over the consequences of extracting rent for public purposes. Later, we shall discuss in depth issues related to the taxation of rent. In this chapter, we will examine how rent applies to minerals, monopolies, externalities, and locational advantages.

2.1. Exhaustible Resources and Their Rent

Adam Smith, in his discussion of land rent, clearly included all payments for the use of the free gifts of nature and did not seem to feel that the question of exhaustibility of a naturally-given resource was relevant in deciding whether its remuneration is, or is not, rent. Smith clearly adhered to the notion of rent as a surplus of factor earnings over the real cost of original production of a factor. Thus Smith (BK I, Ch. 11, ¶3, 57, 62–66) concluded that royalties and severance payments for kelp, stone, timber, and coal are price-determined surpluses, and hence, rents.

Smith, as we shall see, was essentially correct. Unfortunately, Ricardo's (Ch. 2, ¶2) loose assertion that rent was a payment for "the use of the original and indestructible powers of the soil" caused Smith's insights to be lost. This occurred in much the same way as Ricardo's (Ch. 2, ¶19) other famous declaration that "rent does not enter . . . as a component part of . . . price" caused Smith's analysis of opportunity cost of land to be neglected. Ricardo's influence is reflected in statements such as: "Truly indestructible economic goods that require no maintenance are rare indeed . . . so rare that we cannot think of one example" (Alchian and Allen 1964: 119). Such a statement logically leads towards an assimilation of land into capital and a denial that such a thing as rent exists.

The emphasis on the word "indestructible" as the criterion for rent has led some writers to stress the permanence of a resource in

defining land or rent-goods and to ignore whether the resource is a free gift of nature or humanly created (Wicksell [1893] 1954: 98–99, 105, 119; Clark 1907: 179–180). (Böhm-Bawerk ([1889] 1959: 408, n.85) dissented from that emphasis.) Starting from the premise of indestructibility, “land” in the economic sense does not include its exhaustible qualities, though some writers would further distinguish between exhaustible but nonrenewable natural resources (included in land) and exhaustible but renewable resources (not included in land) (Rothbard [1970] 2009: Ch. 7, §4, 496–497; Commons 1922: 41, 49, 60; Brown [1924c] 1979: 221–222). It is obvious that these perplexities of definition have a profound importance for any attempt to tax economic rent. Hence it is necessary to examine carefully the controversy over whether a royalty or severance payment for an exhaustible resource is or is not rent.

Ricardo (Ch. 2, ¶2) argued that a royalty is not a rent. Explaining how his own position differed from Adam Smith’s, he said the latter

tells us that the demand for timber, and its consequent high price . . . caused a rent to be paid for forests in Norway which could before afford no rent. Is it not, however, evident that the person who paid what he thus calls rent, paid it in consideration of the valuable commodity which was then standing on the land, and that he actually repaid himself with a profit on the sale of the timber. . . . The compensation was paid for the liberty of removing and selling the timber, and not for the liberty of growing it. He speaks also of the rent of coal mines, and of stone quarries, to which the same observation applies—that the compensation given for the mine or quarry is paid for the value of the coal or stone which can be removed from them, and has no connection with the original and indestructible powers of the land.

However, in his next chapter, Ricardo (Ch. 3, ¶2) applied the concept of differential fertility to mines: “Mines, as well as land, generally pay a rent to their owner; and this rent, as well as the rent of land, is the effect and never the cause of the high value of their produce.” Orchard (1922: 290–318) explained how Ricardo applied the concept of differential rents to mines.

It is clear that Ricardo’s argument was partly a result of his own definition: unlike J. B. Say, Ricardo did not include all natural agents under “land,” and the differential fertility of mines is not

“indestructible.” What is surprising is that Ricardo referred to a naturally-given resource as a “commodity,” a word normally associated with produced goods.

Marshall (BK IV, Ch. 3, §7, ¶39) endorsed Ricardo’s view that royalties are not rents: “the produce of mines is merely a giving up of their stored-up treasures . . . the produce of the mine is part of the mine itself.” A royalty, Marshall (BK V, Ch. 10, §1, ¶4, fn. 88; §6, ¶27) said,

does no more than cover the injury done to a mine by taking ore out of it. . . . A royalty is *not* a rent. . . . For except when mines, quarries, etc. are practically inexhaustible, the excess of their income over their direct outgoings has to be regarded, in part at least, as the price got by the sale of stored-up goods—stored up by nature indeed, but now treated as private property; and therefore the marginal supply price of minerals includes a royalty.

In other words, a royalty is a return of “principal, not income.” However, the Ricardo-Marshall argument rests on an implicit assumption of the individual, as opposed to the social, point of view. The “therefore” in the quote by Marshall follows on the fact that the mine is “private property.” From a social point of view we may regard rent as a surplus over real cost (as does Marshall elsewhere) and there is no reason to think that the value of a mine represents real cost (Gaffney 1967: xv, 4, 387–388). Discovery is often accidental and, in any case, we should beware of the fundamental fallacy of historical cost accounting, which states that value must equal cost.

As Gray (1914: 483) succinctly puts it, the essential fallacy of the Ricardo-Marshall argument “lies in the fact that the so-called royalty is nothing more than a depreciation charge which results from capitalizing a terminable series of incomes.” For example, if one were to discover accidentally a buried treasure of gold coins on one’s property, its subsequent alienation by sale in the most advantageous way no more represents a real cost to society than the alienation of a landed estate by subdivision, though in both cases prudent owners would not entirely consume their receipts if they wished to “maintain their capital intact” (in the 19th-century popular sense used by prudent investors).

If then depletion of a mine does not represent a real cost in the sense of being the necessary reward for discovery, could it be said that depletion is a cost to society in the sense that it is losing a resource forever? (Marshall, BK 5, Ch. 10, §6, ¶27).

The answer would appear to be that this is an opportunity cost, generated endogenously by the time pattern of use of the resource. It is no more a real cost to society than is the spending of an inherited legacy a real cost to an heir. One should nevertheless charge depletion against production in the national accounts: depletion is to "natural capital" what depreciation is to man-made capital.

Marshall is wrong in his contention that a royalty, unlike rent, is a real cost of production and therefore enters into price. But, he is right in contending that a royalty is a capital account payment, not a current account payment (Marshall, BK V, Ch. 10, §6, ¶27). A royalty is, indeed, not recurrent rent; it is capitalized rent or what lawyers call "rent-in-advance": the present value of future flows of service from a natural agent. The true relation of royalty to rent is the same as the relation of a fee simple value of land to its annual rental. In theory, one could rent a ton of gold for 99 years and turn it into jewelry just as a builder rents land for 99 years and puts a building on it. A lump-sum royalty for severable natural objects is preferred to an annual rent because it avoids the obvious practical problems involved in collecting such an annual debt.

We can now see the answer to Ricardo's questions about the forests of Norway, mines, and quarries: the rent of such lands comprises a flow of rent for its permanent qualities and a royalty or lump-sum "rent-in-advance" for its severable qualities (e.g., trees). Both are price-determined, not price-determining; neither are real costs of production. Of course, once the natural forest is cut down, if a new one is planted then its reward will be a return to capital (that is, a produced means of production), not a royalty.

To sum up, exhaustibility has no essential connection with the concept of rent (Grey 1914: 467–468). The crucial concept is that of a free gift of nature (Mill, BK 1, Ch. 1, §4). Rent exists, regardless of extraction, if there is a surplus over real cost (Grey 1914: 467–468).

From the point of view of public policy, it becomes clear that taxation need not confine itself to those free gifts of nature that are

inexhaustible. No sovereign should refuse to collect a market royalty for the sale of minerals or petroleum simply because one day they will be gone. The wise sovereign should, however, be careful to put some of the proceeds in the bank in order to maintain the revenues in perpetuity, after the mine or well is exhausted. We can see that principle at work in the Gulf States and Norway, which are acutely conscious of the need to reinvest their oil royalties in quasi-permanent infrastructure or in sovereign wealth funds, against the day when the oil and gas cease to flow.

Thus, the basic principle of policy with respect to exhaustible resources should be to tax the rental value of the mineral in situ, which will discourage hoarding it. The jurisdiction applying the rent charge should, however, be careful to put some of the proceeds in the bank in order to maintain the revenues in perpetuity, after the mine or well is exhausted.

In the 1970s, OPEC seemed intent on using the reverse logic—by hoarding petroleum rather than extracting it at an economically optimal rate. In effect, it was following the advice of Ricardo and Marshall—collecting cartel royalties to compensate for the eventual depletion or obsolescence of its oil reserves. That policy hastened the obsolescence of those reserves. Energy-importing countries contributed their share to this folly by imposing high taxes on petroleum products and price controls on natural gas and other potential energy supplies. In doing so, they diminished incentives both for oil and gas exploration and for adoption of new energy sources. Nonetheless, there were shifts from oil to coal, natural gas, and nuclear power. The extent of the shift and diversification of energy sources seems demonstrated by the fact that the oil price hikes following the 2003 invasion of Iraq seem to have had less of a damaging effect on the world economy than was first feared.

2.2. Rent as a Monopoly Return

Land monopoly is not the only monopoly, but it is by far the greatest of monopolies—it is a perpetual monopoly, and it is the mother of all other forms of monopoly.

Winston Churchill (1909: 318)

The idea that rent is a monopoly return is as old as Adam Smith, and yet, in recent theory, it has not been seriously entertained.

However, I shall endeavor to show in this section that the modern incomprehension of the classical notion of rent as a monopoly return has resulted from redefinition of terms rather than from any inherent weakness in the classical concepts, which, indeed, are now being rediscovered in the literature of competition.

Before commenting on the writers who claimed that rent is a monopoly return, let us consider some of the ideas associated in the literature with the words "competition" and "monopoly."

"Monopoly" has been used in two senses (Alchian and Allen 1964: 334):

- (1) A producer faces a downward-sloping demand curve, which will always be the case if the word "product" is narrowly enough defined (Kirzner 1978: 101, 105–107; Ise 1940: 43).
- (2) There are barriers to the entry of other producers (Kirzner 1978: 97; Stigler 1965: 244).

"Competition," on the other hand, has been associated with the following ideas.

- (1) A producer faces a horizontal demand curve or, in other words, there are indefinitely many producers of a homogeneous product (Stigler 1965: 262).
- (2) The equalization of factor rewards on each resource in all uses (also the condition for maximum output from given resources) (Stigler 1965: 264–265).

The weaknesses of the first-mentioned notions of monopoly and competition and their nonequivalence with the latter-mentioned notions are now well known (Stigler 1965: 238; Alchian and Allen 1964: 334, 431–433; Kirzner 1978: 98–118; Rothbard [1970] 2009: Ch. 10, §3A, 661–671; Hayek [1948] 1972: 94–98, 105). The result of this reappraisal of the neoclassical concepts of competition and monopoly leads Kirzner (1978: 97) to the following conclusion:

In order, then, for us to speak freely of a lack of competitiveness in a market process, we must be able to point to something which *prevents* market participants from competing. What is it that might succeed in

rendering particular market participants secure from being competed with—that might make it possible for them to continue to offer inferior opportunities to the market, immune from the pressure of having at least to match the more attractive offers which other participants might be making available?

The answer is that “in the absence of government restrictions on given activities the only possible source of blockage to entry into a particular activity must arise from restricted access to the resources needed for that activity” (Kirzner 1978: 99). Consequently, as Kirzner (1978: 109) concludes: “What the monopolist is able to secure for himself (beyond any possible purely entrepreneurial profits which his alertness may discover) is a *monopoly rent* on the uniquely owned resource from which he derives his monopoly position.”

Thus, Kirzner (1978: 111) saw that private property in land allowed monopoly rents to subsidize unprofitable investments. Nevertheless, Kirzner (1978: 238–242) argued that society is better off for allowing entrepreneurs to compete for a monopoly position.

This “approach to the analysis of monopoly . . . sees its harmful effects . . . in the incentive which monopoly ownership provides for not using a scarce resource to the fullest extent . . .” (Kirzner 1978: 111). Closed monopoly rent “is achieved by restricting the transference of resources, so that a difference between value of product and costs is created” (Alchian and Allen 1964: 430).

We have already seen that classical writers saw land rent as resulting from a surplus of product price over real cost of production. We shall also see that some viewed absolute private property in scarce non-reproducible natural resources as an inter-temporal barrier to entry, in that future generations of producers would not necessarily have access to equivalent resources on the same terms as their predecessors.

Schumpeter claims that Adam Smith had “no theory of monopoly price” and “reasoning from his cost theory of value, Smith not unnaturally—though wrongly—arrives at the conclusion that the phenomenon of rent can be due only to a ‘monopoly’ in land” (Schumpeter 1954: 189, 190). Smith is allegedly wrong because “the landed interest is not a single seller and therefore its income cannot be explained by the theory of monopoly” (Schumpeter 1954: 264).

However, Smith used the word “monopoly” in several senses, ultimately derived from the concept of barrier to entry. Bearing in mind the history of “monopoly” in English law, we can see that Smith (BK 1, Ch. 7, ¶26) deduced that a barrier to entry must result in an excess of price over cost:

A monopoly granted either to an individual or to a trading company has the same effect as a secret in trade or manufactures. The monopolists, by keeping the market constantly under-stocked, by never fully supplying the effectual demand, sell their commodities much above the natural price, and raise their emoluments, whether they consist in wages or profit, greatly above their natural rate.

Smith thus linked the latter two notions of monopoly and competition discussed above.

The question naturally arises: If monopoly means an excess of price over cost, which cost is relevant? Is it the real cost of production or the opportunity cost of alternative uses? Smith’s answer was that both are relevant.

When discussing land that has alternative uses that pay less than its given use, resulting in a surplus of price over opportunity cost, Smith referred to such rent as “monopoly” rent. Thus, the dearness of house-rent in London is in large part due to “the dearness of ground-rent, every landlord acting the part of a monopolist, and frequently exacting a higher rent for a single acre of bad land in a town, than can be had for a hundred of the best in the country” (Smith, BK 1, Ch. 10, ¶55). Similarly, vineyards that produce highly-prized wines earn monopoly rents above their natural rate because they are not subject to competition from the “common land of the country” (Smith, BK 1, Ch. 11, ¶19, 34, 40, 42). It is interesting to note that improvements in transport are “the greatest of all improvements” because they destroy such special monopoly rents and promote more efficient use of land (Smith, BK 1, Ch. 11, ¶14).

However, when considering land as a whole, Smith regarded all rent as a monopoly return because it is a surplus over the real cost of production of land services:

The rent of land, therefore, considered as the price paid for the use of the land, is naturally a monopoly price. It is not at all proportioned to what the

landlord may have laid out upon the improvement of the land . . . but to what the farmer can afford to give. (Smith, BK 1, Ch. 11, ¶5)

Rent, like all monopoly prices, is thus demand determined and not governed by real cost of production (Smith, BK 1, Ch. 11, ¶1–3; BK 1, Ch. 7, ¶24–25). The same notion is found in Ricardo, John Stuart Mill, and Henry George, all of whom contrasted values governed by cost of production with values determined by natural or artificial scarcity (Ricardo, Ch. 1, ¶4–6; Mill, BK III, Ch. 6, §1; George 1898: BK II, Ch. 14).

Smith's (BK IV, Ch. 7, ¶24, ¶40–41; BK I, Ch. 6, ¶8) views on rent as a monopoly were developed in his remarks praising a policy of free access to cultivable land, enforced by laws against engrossing, as in the case of the northern English colonies in America. Smith saw engrossment (large land holdings) as a potential barrier to national prosperity.

These passages anticipate the thesis that free land at the frontier will check land monopoly (speculation) and allow wages to be governed by labor's product on no-rent land. This idea, that absolute private property in natural resources could be inimical to efficient resource allocation, was to reach much fuller development at the hands of John Stuart Mill and Henry George. As we have seen, both of them were severely critical of the suggestion that the increment in land values was an appropriate reward for settlers in a new country.

Finally, we may note that Smith also used the term "monopoly" in two ways. One was in reference to regulations that keep land off the market (Smith, BK III, Ch. 4, ¶19). The second usage was in the contemporary sense of "collusion" (Smith, BK 1, Ch. 11, ¶ 264). It is in this latter sense that he remarked that "country gentlemen and farmers are, to their great honor, of all people, the least subject to the wretched spirit of monopoly" (Smith, BK IV, Ch. 2, ¶21).

Linking all these concepts of "monopoly" are the fundamental ideas of an excess of price over cost and the inevitably associated barrier to entry. One may criticize Smith's failure to develop a more detailed vocabulary, but it is a great mistake to pronounce his treatment of monopoly inconsistent.

Before concluding this brief survey of Smith's treatment of rent as a monopoly return let us note Smith's (BK 1, Ch. 11, ¶70) remark that

[t]he most fertile coal mine too, regulates the price of coals at all other mines in its neighborhood. Both the proprietor and the undertaker of the work find, the one that he can get a greater rent, the other that he can get a greater profit, by somewhat underselling all their neighbors.

Ricardo (Ch. 24, ¶7–9) was severely critical of this remark but, as Schumpeter (1954: 673–674, n. 73) commented, Smith was thinking of the dynamic process of moving to equilibrium and Ricardo was contemplating an equilibrium already achieved. Smith showed here a remarkable insight into how the possession of a superior non-reproducible natural resource can allow a producer to engage in predatory pricing, one of the major means of establishing monopoly (Kirzner 1978: 109; Hollander 1973: 166, n. 78).

We saw earlier that Smith (BK I, Ch. 6, ¶8) observed rent emerging whenever land was privately appropriated. David Buchanan (in Smith 1814: Vol. I, 99, note h), reflecting on that idea, pushed forward to prominence the notion that

the profit of a monopoly stands on precisely the same foundation as rent. A monopoly does artificially what in the case of rent is done by natural causes. It stints the supply of the market until the price rises above the level of wages and profit.

Buchanan was led to deny that rent was a taxable surplus because, like monopoly, it was injurious to consumers by adding to the price they paid and was merely a transfer payment from consumers to proprietors. Since Buchanan thought rent increased the price of goods, rather than being an element of their value, he proposed to lower prices, not to tax rent (Buchanan, in Smith 1814: Vol. III, 272).⁶

Malthus was goaded by these remarks to write: “Almost all these writers [Smith, the Physiocrats, et al.] appear to me to consider rent as too nearly resembling in its nature, and the laws by which it is governed, the excess of price above the cost of production, which is the characteristic of a monopoly” (Malthus [1815] 1903: 12). The practical conclusion of the Physiocrats, “namely, the propriety of taxing exclusively the neat rents of the landlords, evidently depends upon their considering these rents as completely disposable, like that excess of price above the cost of production which distinguishes a common monopoly” (Malthus [1815] 1903: 13).

Malthus's ([1815] 1903: 14–15, 20–21, 23) answer to Buchanan rested on the assertion that rent represents an original part of national income, and that the labor theory of value is invalid. Nonetheless, Malthus ([1815] 1903: 15) did not succeed in his attempt to suggest that land is a partial monopoly rather than a natural monopoly. Malthus ([1815] 1903: 23) also failed to refute the Physiocrats for he admitted that

rents are neither a mere nominal value, nor a value unnecessarily and injuriously transferred from one set of people to another; but a most real and essential part of the whole value of the national property, and placed by the laws of nature where they are, on the land, by whomsoever possessed, whether the landlord, the crown, or the actual cultivator.

Malthus simply showed that rent is a necessary part of the price system from the point of view of resource allocation and, only to this extent, did he refute Buchanan's statements on rent.

Ricardo (Ch. 32, ¶1, 5) remarked that Malthus was in error "in supposing rent to be a clear gain and a new creation of riches"; rather, "rent is a creation of value . . . but not a creation of wealth."⁷ Ricardo was correct in spotting this weakness in Malthus's argument, but Ricardo himself seems confused, for Ricardo elsewhere (Ch. 26, ¶3) regarded rent as a part of the original net revenue of a nation and as such capable of bearing taxes. Ricardo (Ch. 32, ¶5–6) arrived at the opposite conclusion from the one David Buchanan reached, based on the same concept of rent as a transfer income. Ricardo (Ch. 17, ¶8) also seemed in sympathy with Smith's approach when he remarked that "[t]he exchangeable value therefore of a commodity which is at a monopoly price is nowhere regulated by the cost of production" and sees this result as due to non-augmentability.

However, Ricardo did not clearly develop this idea in relation to rent, for the term "cost of production" may mean several things:

- (1) cost of original production
- (2) cost of identical reproduction
- (3) cost of reproduction of a substitute
- (4) cost of production at the margin
- (5) real cost of infra-marginal produce.

David Buchanan seems to have thought of monopoly price as a surplus over cost of original or infra-marginal production (Ricardo, Ch. 17, ¶14). Ricardo (Ch. 17, ¶8–10) seems to have viewed monopoly price as surplus over cost of identical reproduction. Otherwise, he would have had to admit that forests yield a rent, which he did not (Ch. 2, ¶2). Moreover, it seems that Ricardo (Ch. 20, ¶2) preferred to describe land as having a scarcity value rather than employ the word “monopoly,” which he used at one time in the sense of unitary control.

Ricardo may have been equivocal about the description of rent as the reward of a natural monopoly, but John Stuart Mill (BK III, Ch. 1, §1, ¶7) was not: “A monopoly value means a scarcity value. Monopoly cannot give a value to anything except through a limitation of the supply.” Land, Mill (BK II, Ch. 2, §6, ¶6) argued, is limited in supply and “from the very nature of the case, whoever owns land, keeps others out of the enjoyment of it. The privilege, or monopoly, is only defensible as a necessary evil.” Rent, Mill (BK II, Ch. 16, §1, ¶2) said, “is the effect of a monopoly; though the monopoly is a natural one, which may be regulated, which may even be held as a trust for the community generally, but which cannot be prevented from existing.” Mill went on to contrast this sense of “monopoly” with the use of it to denote collusion. However, Mill, like Ricardo, was not entirely clear. Elsewhere, Mill (BK III, Ch. 5, §2, ¶2) said:

It was long thought by political economists, among the rest even by Adam Smith, that the produce of land is always at a monopoly value, because (they said) in addition to the ordinary rate of profit, it always yielded something further for rent. This we now see to be erroneous. A thing cannot be at a monopoly value, when its supply can be increased to an indefinite extent if we are only willing to incur the cost.

On this basis why should rent itself be a monopoly return? Location rents can be avoided, for example, if only we are “willing” to pay higher transport costs.

Mill did not, I think, fully understand Smith’s analysis of rent in terms of both real and opportunity cost (Mill gave no citations), but this is understandable in view of the different senses in which Smith used the term “monopoly.” This lack of understanding was, I suggest, manifest not only in the above conundrum but also in another passage

where Mill (BK V, Ch. 3, §6, ¶1) followed Smith in talking about special monopoly rents of situation (surpluses over opportunity, not real, cost), without making it clear that this is a third usage. Nonetheless, Mill firmly grasped Smith's main point, that land rent, in the aggregate, is a surplus over land's real cost of original production.

Henry George emphasized the same point when he wrote that "[l]and, without which there can be no production, is monopolized" (George 1879: BK VI, Ch. 1, §4, ¶6). He went on to argue that land values represented the exchange value of monopoly, a "value from obligation," and could be taxed as such without excess burden (George 1879: BK VIII, Ch. 3, §1, ¶8; George 1898: BK II, Ch. 13–14; Carlton 1907: 57). George went further, following a direction pointed out by John Stuart Mill (BK II, Ch. 1, §3).⁸ George (1879: BK VIII, Ch. 3, §1, ¶7–8; BK IX, Ch. 2, ¶7) argued that absolute private property in land was incompatible with the best use of natural resources and that the lure of the unearned increment would lead to a suboptimal result as producers jockeyed for unencumbered possession, in perpetuity, of superior resources (Andelson 1974: 285).

In effect, George argued that untaxed private property in land allows monopoly rents to distort investments. Unlike Kirzner, who believes the pursuit of monopoly adds social benefits, George argued that the rent-seeking behavior that arises when land is sold once and for all is socially destructive. He saw no benefit in allowing entrepreneurs to compete for a monopoly position. George (1879: BK VIII, §3, ¶4–6) argued that it is one thing to favor patent and copyright monopolies (though he recanted his approval of patents) but quite another to think that unencumbered fee-simple grants of land are necessary to reward any entrepreneurial services to production. Yet, even patents and copyrights are flawed examples of incentives and widely abused to prevent innovation rather than encourage it. One can see good economic and ethical arguments for total abolition of patent monopolies and for limiting copyright duration to the life of the author or the spouse and the minority of the dependent children.

The significance of the claim that rent is a monopoly return lies in its implication, stressed by Mill and George, that land rent taxation could be simultaneously unshiftable and super-neutral. By denying to

any producer the luxury of being able to under-utilize natural resources and undercut his marginal competitors, resource allocation would be improved.⁹

From Marshall (BK V, Ch. 10, ¶2; [1890] 1961: 451) onward, there seems to be little interest in the notion of rent as a monopoly return, “monopoly” being confined to the description of collusive action. Marshall (BK V, Ch. 11, §2; [1890] 1961: 503–504, 506) himself was aware of the interaction between location, superior resources, and predatory pricing. Fortunately, the old connections between rent and barriers to entry have reemerged from time to time. Wicksell ([1911, 1934] 1977: Vol. I, 131) noted that a large enterprise may have an “actual monopoly simply because it came first on the scene, and this monopoly may be as good as a monopoly which is legally established.” More recently, Eaton and Lipsey (1976) have presented a theory of spatial preemption, the idea that location can be used as a barrier to entry.

2.3. Externality as a Cause of Rent

When economic activity occurs, costs and benefits that affect third parties are known as externalities. Positive externalities provide benefits to third parties; negative externalities impose costs. The problem for resource allocation lies not in the existence of externalities as such, but in the failure to price them.

In practice, however, virtually all “externalities” *are* priced via land rent. Air pollution, noise pollution, highway improvements, complementary land uses, public spending—all have their effect on rent. (Appendix 4 summarizes some of the research on the ways in which positive externalities raise surrounding land values and negative externalities lower them.) In other words, an externality may be “accounted for” without necessarily being “internalized” or credited to the originators.

The power of land values to reflect accurately external (off-site) economic activities (such as subsidies, pollution-causing production, or local infrastructure) derives ultimately from the spatial nature of land. If all externalities are spatially limited, and if capital and labor are homogeneous and mobile, then land rent will benefit or suffer from

whatever causes a super-normal or sub-normal level of profits and wages. Just as a local tax on capital and labor will cause land rent to fall as a result of the exodus of mobile factors of production, so a spatial external diseconomy (which is a tax in kind) will have precisely the same effect. This is, of course, simply a modern analogue of the Physiocratic doctrine that all taxes fall on land, the immobile factor.

Virtually all conceivable externalities are spatial in nature and accounted for by land rent. It does not follow that there need be, for example, no public policy towards pollution. While some land rents may rise from an anti-pollution policy, the rent of other locations may decline by a greater amount. The optimal policy is one that maximizes aggregate land rents, an echo of Adam Smith's notion that the progress of society is a rent-maximizing process (Samuelson 1977: 43).

Adam Smith (BK I, Ch. 7, ¶2; Ch. 11, ¶23; BK III, Ch. 3, ¶19; BK IV, Ch. 9, ¶48–49) was, in fact, well aware of how land rent could reflect externalities and synergism. He remarked that rent is influenced by “the general circumstances of the society or neighborhood” and illustrated his point by showing how the rent of a pasture may be affected by the actions of neighbors in enclosing their fields and how rent will be increased by the growth of adjacent markets and the reciprocal complementarity of town and country: “as the fertility of the land had given birth to the manufacture, so the progress of the manufacture reacts upon the land, and increases still further its fertility.”

Smith (BK I, Ch. 11, ¶4) also observes that

the sea in the neighborhood of the islands of Shetland is more than commonly abundant in fish. . . . But in order to profit by the produce of the water, the inhabitants must have a habitation upon the neighboring land. The rent of the landlord is in proportion, not to what the farmer can make by the land, but to what he can make both by the land and by the water.

One applies this type of observation to Meade's (1952: 56–58, 62–63) well-known examples of externality in the apples-honey and timber-wheat cases. By doing so, one sees the genesis of the criticism, since made of Meade, that resource rents will ensure that externality does not, of itself, lead to resource misallocation (Gould 1973: 61–62; Knight 1924: 586).

Another area in which Smith (BK I, Ch. 11, ¶14) made some cogent remarks is the effect of transportation improvements upon rents:

It is not more than fifty years ago that some of the counties in the neighborhood of London, petitioned the Parliament against the extension of the turnpike roads into the remoter counties. Those remoter counties, they pretended, from the cheapness of labor, would be able to sell their grass and corn cheaper in the London market than themselves, and would thereby reduce their rents, and ruin their cultivation. Their rents, however, have risen, and their cultivation has been improved since that time.

Smith would concede that such improvements may effect a redistribution of rents, but he counters that the ultimate effect of such improvement is to raise aggregate rents by inducing increased productivity through the division of labor, which depends upon the extent of the market. Transportation improvements

are advantageous to the town, by breaking down the monopoly of the country in its neighborhood. They are advantageous even to that part of the country. Though they introduce some rival commodities into the old market, they open many new markets to its produce. (Smith, BK I, Ch. 11, ¶14)

These comments probably represent the first contribution to the discussion of cost-benefit analysis and highway improvements.

Ricardo did not consider the effects of externality on the rent of land, but John Stuart Mill did discuss the effect upon land rent of the development of better transportation. Mill is concerned with answering Carey's argument that the value of land is not worth the capital expended upon it, including capital spent on roads, canals, and railways. According to Mill (BK II, Ch. 16, ¶15–16):

The roads, railways and canals were not constructed to give value to land: on the contrary, their natural effect was to lower its value, by rendering other and rival lands accessible: and the landholders of the southern counties actually petitioned Parliament against the turnpike roads on this very account. The tendency of improved communications is to lower existing rents, by trenching on the monopoly of the land nearest to the places where large numbers of consumers are assembled.

Mill, in fact, suggests that if transport costs become nil, rent would be "annihilated."

Mill's discussion is somewhat unsatisfactory. Unlike Smith's, the analysis is static and partial equilibrium in its nature. Mill does not

seem to consider the answer Smith gave, that the effect would be a spatial redistribution of rents followed by an aggregate rise. Moreover, his comments on annihilation of rent could only be true in a non-spatial timeless economy (since time of transport is also a cost), which shows that it is irrelevant to the point at issue.

Perhaps the writer who most clearly perceived the relationship between rent and externality was Henry George. He argued that externality was natural, that it was spatial in nature and hence reciprocal and non-appropriable as between those who produced it, since competition meant that they could only earn normal wages or profits. Instead, the benefits of external economies would be reflected in land rents, the growth of which was not therefore to be exclusively ascribed to diminishing returns.

In discussing the growth of a town, George (1879: BK IV, Ch. 2, ¶14–15; BK V, Ch. 2, ¶23–29) says:

The presence of other settlers—the increase of population—has added to the productiveness . . . of labor bestowed upon it [land], and this added productiveness gives it a superiority over land of equal natural quality where there are as yet no settlers. . . . To labor expended in raising corn, or wheat or potatoes, it will yield no more of those things than at first; but to labor expended in the subdivided branches of production which require proximity to other producers, and, especially, to labor expended in that final part of production, which consists in distribution, it will yield much larger returns. The wheat-grower may go farther on, and find land on which his labor will produce as much wheat, and nearly as much wealth; but the artisan, the manufacturer, the storekeeper, the professional man, find that their labor expended here, at the centre of exchanges, will yield them much more than if expended even at a little distance away from it; and this excess of productiveness for such purposes the landowner can claim just as he could an excess in its wheat-producing power. . . . The increase of productiveness or utility which increase of population gives to certain lands, in the way to which I have been calling attention, attaches, as it were, to the mere quality of extension.

George's view (1879: BK IX, Ch. 1, ¶6–7) that externality is a natural phenomenon already accounted for in the rent of land is revealed in his discussion of the effects of rent taxation:

There is to the community also a natural reward. . . . No one can keep to himself the good he may do, any more than he can keep the bad. Every productive enterprise, besides its return to those who undertake it, yields

collateral advantages to others. If a man plants a fruit tree, his gain is that he gathers the fruit in its time and season. But in addition to his gain, there is a gain to the whole community. Others than the owner are benefited by the increased supply of fruit; the birds which it shelters fly far and wide; the rain which it helps to attract falls not alone on his field; and even to the eye which rests upon it from a distance, it brings a sense of beauty. And so with everything else. The building of a house, a factory, a ship, or a railroad benefits others besides those who get the direct profits. Nature laughs at a miser. . . . Well may the community leave to the individual producer all that prompts him to exertion; well may it let the laborer have the full reward of his labor, and the capitalist the full return of his capital. For the more that labor and capital produce, the greater grows the common wealth in which all may share. And in the value or rent of land is this general gain expressed in a definite and concrete form.

What is interesting about these remarks by George is that they foreshadow the role the concept of rent has played in the criticism of the Pigouvian tradition regarding divergences of social from private costs. The problem of externality becomes a problem of the non-appropriability of rent, for, in the absence of transactions costs, rent will correctly price any externality (Gould 1973: 61–62; Knight 1924: 586; Ellis and Fellner 1943: 510; Nutter 1968: 507).

Alfred Marshall's views on the nexus between rent and externality to some extent follow those of Henry George. In his first edition, Marshall ([1890] 1961: 697–698) stated:

There is a constant and rapid increase in that part of the aggregate price paid for commodities which does not go to reward the new efforts and sacrifices required for their production . . . but goes to the owners of those differential advantages which arise from situation. This is partly due to the increase in the number of sites which derive a high value from their proximity to markets. . . . It is these space relations of land which . . . distinguish it most strongly from other material things; and it is they which are the chief source of those differential advantages in production that acquire an increasing scarcity value from the progress of the industrial environment.

Marshall (BK IV, Ch. 3, §2, ¶14, §6, ¶35–36) agreed that a large part of the rent of land was due to these external economies, which offset the law of diminishing returns, but he also noted that an excessive concentration of population could eventually cause external diseconomies. Indeed, when Marshall (BK IV, Ch. 9, §7, ¶25) introduces the

term “external economies” he immediately links it to the localization of industry. Marshall (BK V, Ch. 11, §1, ¶3) develops the theme later when he states that

the situation of a business nearly always plays a great part in determining the extent to which it can avail itself of external economies; and the situation value which a site derives from the growth of a rich and active population close to it, or from the opening up of railways and other good means of communication with existing markets, is the most striking of all the influences which changes in the industrial environment exert on cost of production.

Marshall (BK V, Ch. 10, §4, ¶17) also points out that the rental value of land is

commonly called its “original value” or its “inherent value;” but much of that value is the result of the action of men, though not of its individual holders. For instance, barren heath land may suddenly acquire a high value from the growth of an industrial population near it; though its owners have left it untouched as it was made by nature. It is, therefore, perhaps more correct to call this part of the annual value of land its “*public value*,” while that part which can be traced to the work and outlay of its individual holders may be called its “private value.”

The idea of “public value” of land lies at the heart of Marshall’s (App. G, §3, ¶10) analysis of onerous and beneficial rates; “onerous taxes on site values tend to be deducted from the rental which the owner, or lessee receives.” On the other side, beneficial rates, by attracting industry and population, tend to be capitalized in higher land values. Local taxes and subsidies, like external diseconomies and economies, will be reflected in site values, provided capital and labor are mobile (Marshall App. G, §9, ¶30–31). This is another modern version of the Physiocratic doctrine that all taxes fall on land.

Marshall (App. G, §4, ¶15) also makes the interesting remark that local onerous taxes on capital, while depressing land values in the affected area, will raise values elsewhere, in the areas to which capital has been diverted. One would expect, however, aggregate rent to be less because of the excess burden of this misallocation of resources. Marshall would appear to agree with this. What Marshall does not explicitly state, but which is implicit in his discussion, is that precisely

the same reasoning can be applied to spatial external economies and diseconomies: their ultimate effect will be upon the amount and spatial distribution of rents.

In discussing the effect of improvements in transportation upon land rents, Marshall (BK VI, Ch. 12, §6, ¶24) follows Smith, rather than J. S. Mill, in arguing that “anything that promotes the prosperity of the people promotes also in the long run that of the landlords of the soil.”

The question naturally arises as to why externalities are so specially linked to the value of land. Marshall (BK VI, Ch. 12, §7, ¶25) does not fully consider the question but he does make a suggestion:

But though the development of the industrial environment tends on the whole to raise the value of land, it more often than not lessens the value of machinery and other kinds of fixed capital. . . . A sudden burst of prosperity may indeed enable the existing stock of appliances in any trade to earn for a time a very high income. But things which can be multiplied without limit cannot retain for long a scarcity value.

This explanation echoes J. S. Mill's division of commodities into those whose value was determined by scarcity and those whose value was regulated by cost of production. Perhaps another way of looking at this is to observe that, in the long run, capital and labor are homogeneous (or replicable) and spatially mobile. They cannot *permanently* appropriate the gains from externalities differentially, since competition forces them to share gains equally. In contrast, land is immobile and will therefore bear the burden or reap the benefits of local taxes or diseconomies and local public goods or economies.

The relationship between rent and externalities is the underlying link with local public goods theory (Tiebout 1956: 419; Oates 1969: 957; Polinsky and Rubinfeld 1974; 1978). That relationship also enables us to analyze the social benefits of projects (Mohring 1961: 236; Lind 1973: 188–189; Pines and Weiss 1976: 1–2). Finally, it offers a critique of the Pigouvian distinction between social and private costs. In all these various fields, the ultimate rule for optimality appears to be the maximization of aggregate land rents (Pines and Weiss 1976: 1–2; Nutter 1968: 507; Gould 1973: 60–62; Dick 1976: 194). Nor is this surprising, if one views rent as a surplus over real cost. Adam Smith (BK IV, Ch. 7, ¶188, BK I, Ch. 11, ¶258–262) and the Physiocrats (Turgot [1788] 1973: 180; Quesnay [1759] 1972: 19)

regarded rent in that way and hence equated its growth as synonymous with the prosperity of society.

2.4. Rent as Payment for Location

That rent will be paid for location follows naturally from the fact of spatial externality. Transport costs represent the most obvious barrier to enjoyment of such externalities and, obviously, if transport were costless and instantaneous (time is money), then location rents would not exist.

Adam Smith (BK I, Ch. 7, ¶2; BK I, Ch. 11, ¶13; BK V, Ch. 2, ¶68) clearly recognized the spatial character of externality and its relation to rent. He gives two causes for rent, its fertility and “the general circumstances of the society or neighborhood in which the land is situated.” Thus Smith (BK I, Ch. 11, ¶20) explained:

in the neighborhood of a great town, the demand for milk and for forage for horses, frequently contribute . . . to raise the value of grass above what may be called its natural proportion to that of corn. This local advantage, it is evident, cannot be communicated to the lands at a distance.

Such a local advantage is, according to Smith’s (BK I, Ch. 11, ¶14; BK V, Ch. 2, ¶74) terminology, a “monopoly of the country in its [the town’s] neighborhood.” Smith (BK I, Ch. 11, ¶13; BK I, Ch. 11, ¶57; BK III, Ch. 1, ¶1) also clearly recognized the inverse relationship between rent and transport costs. Consequently, Smith (BK I, Ch. 11, ¶14) favored transportation improvements to break down such monopoly rents of situation, since monopoly was an enemy to good management. In other words, he felt that such improvements would reduce the surplus rewards such land received over the rent for similar land in alternative locations.

This has some relevance to the contention of R. M. Haig (1927: 39) that, all other things being constant, a transportation improvement would reduce aggregate land rents. Smith’s answer would seem to be rather that such improvement would level out rents spatially (by introducing more competition among land parcels) but raise aggregate land rents by increasing productivity, as we saw in the previous section. Goldberg (1970: 155–157) also holds this view, employing the

term “economic rent” (Paretian rent) for what Smith would call a special “monopoly” rent.

Ricardo (Ch. 2) recognized that location influences rent, but he did not analyze its relationship to externality, nor did he consider whether it is an original and indestructible power of the soil. Marshall (BK VI, Ch. 9, §4, ¶12, n. 1) also discussed location as a factor in rent. If Ricardo had considered rent as a social product, perhaps he could have shared Smith’s view that the growth of rent is a sign of progress rather than the approach of the dreaded stationary state. Unfortunately, he did not, and as a result, Smith’s more subtle analysis of rent was obscured in this aspect, as in others. H. G. Brown (1926) examined the relationship of population growth to rent and diminishing returns. Sowell (1974: 81) revealed how these issues entered into the question of whether rent enters into price.

John Stuart Mill (BK I, Ch. 1, §4; BK I, Ch. 7, §2; BK II, Ch. 16, §2, §5) followed Ricardo in that he recognized location as a major cause of rent, but did not stop to analyze it. Taking the same view as Ricardo, he treated location as though it were a natural physical quality of the soil, for implicitly he assumed the distribution of markets and population is exogenously fixed.

Henry George (1898: BK III, Ch. 5, ¶8–13) responded with the objection that location was not a thing possessed inherently by land, but rather a relation between people and things. Hence, location was generated as a result of human settlement. Closer settlement would be matched for a time by increasing returns due to external economies (George 1879: BK IV, Ch. 2; Marshall: BK IV, Ch. 3, §6, ¶35–36). Eventually, decreasing returns would emerge due to diseconomies such as congestion (George 1898: BK III, Ch. 7, ¶2; Marshall, BK IV, Ch. 3, §7, ¶41). George (1898: BK III, Ch. 7, ¶6) regarded the law of diminishing returns in agriculture as simply one manifestation of the general principle of increasing and then decreasing returns to spatial concentration of labor and capital.

This ties in with Say’s (BK II, Ch. 9, §1, ¶3) view that maximizing aggregate land rent will ensure that capital and labor are most productively employed. It is not in the landowners’ collective interest to allow decreasing returns to set in prematurely, although George would have argued that it may suit the interests of an individual landowner.

Alfred Marshall (BK IV, Ch. 2, §1, ¶3) remarked that the spatial quality of land was that

which, though as yet insufficient prominence has been given to it, is the ultimate cause of the distinction which all writers on economics are compelled to make between land and other things. It is the foundation of much that is most interesting and most difficult in economic science.

Marshall (BK IV, Ch. 10, §3; BK V, Ch. 11, §1, ¶2–4; Ch. 11, §2, ¶11–12; [1890] 1961: 497, 514) recognized, as we have seen, the nexus between site value, external economies, and complementary land uses. However, he left himself open to criticism in not pursuing the concept more closely (Fetter 1901: 425–429). Indeed, in his summary of the theory of value, Marshall (BK V, Ch. 15, §1, ¶3) suggests that “the influence of time” is “more fundamental than that of space.” That comment is understandable in view of his major contribution in the concept of “quasi-rent,” but it is nonetheless misleading. The neglect of space by economic theory is strongly criticized by Richardson (1969: 1–5).

It would seem more correct to recognize that both space and time (or location and duration) are fundamental. It has since been recognized that an inefficient combination of space and time may lead to a suboptimal allocation of resources. The arguments rest on the fact that entry into product markets is not instantaneous (Hay 1976: 240). As a result, prior producers are able to command superior sites or natural resources (Gaffney 1967: 335, 359–360, 367, 394, 405–406). They may, in turn, use their resource rents to subsidize predatory pricing whether directly or by preemption of sites in a growing market (Eaton and Lipsey 1976). An existing producer may benefit in the long run by buying and holding a site at a time when it would be uneconomic for a potential rival to do so. For the existing producer the immediate losses are ultimately recouped through enhanced market power: natural monopoly thus begets conventional monopoly.

Obviously, such behavior tends towards the dissipation, rather than the maximization, of aggregate land rents (or more strictly, the present value thereof). This is simply another case of the conflict between individual and collective rationality. It is similar to the problem of comparative pollution externalities when the site held by landowner “B” is damaged more than the site held by landowner “A.” “A” may have no interest in curbing pollution since it harms “B” more. “A’s” land may

thereby earn a higher rent even though aggregate losses by both landowners are greater. One might also remark that land use zoning must logically rest upon the same assumptions about individual versus collective rationality.

The nexus between location, monopoly, and the cornering of socially produced external economies is not, however, of entirely recent discovery. Carlton (1907: 54–57) argued that

men who control land in proximity to markets . . . are able to capitalize these opportunities . . . and to levy tolls upon the people who buy and sell in the markets thus controlled. . . . They are able to obtain a return in excess of the interest rate on the capital invested. . . . What causes value to adhere to land proper? It is the very fact of a lack of competition. In so far as one land area, as land, is more valuable than another, . . . to that extent is its situation as regards a market more desirable. . . . The right to occupy and possess land to the exclusion or displacement of others is “a right conferred by government of conducting an occupation either in particular way or accompanied with particular privileges.” [In the last phrase, he quotes E. R. A. Seligman’s definition of a franchise.]

Thus a tax on land values, he argues, is but a franchise tax on the capitalized value of market opportunity rent.

Henry George would, of course, have agreed with this. As Blaug (1968: 88) remarks, his single tax “was designed to reduce the [private] price of land as mere space to zero . . . it would put all property on the same basis irrespective of its location,” and, we might add, do this for successive generations of producers.

Thus the significance of rent as a payment for location is seen to lie in the prospect that its appropriation by individuals is not necessarily conducive to the competitive and optimal allocation of resources. Those in possession of superior sites may rationally choose to use them as a lever towards further market power and spatial monopoly.

2.5. Rent as Durable Surplus

The balance of advantage seems to lie in favor of reserving the term Rent for the income derived from the free gifts of nature, whenever the discussion of business affairs passes from the point of view of the individual to that of society at large.

—Alfred Marshall (BK II, Ch. 4, §2, ¶12)

Rent Best Defined as the Opportunity Cost of Land

The exploration in the previous pages of the concept of rent clearly shows that the term has acquired various meanings, and it is not at all clear which one is dominant at the present time. The concept that is consistent with classical economics and that underlies the theory of land rent taxation is that rent is the factor payment that is made for the free, albeit scarce, gifts of nature. It is the only long-run surplus over real cost (i.e., labor and capital costs).

The modern and competing concepts are that rent is any payment for a differential advantage or that rent is any surplus over opportunity cost of a factor.

One is, of course, free to use terms in whatever sense one chooses to define for them but it is obvious that communication is easiest when a word such as "rent" is used in the same sense by all. For this reason I find myself in complete agreement with H. G. Brown (1941: 833–835) and D. A. Worcester (1946: 258–277) in their criticisms of the surrender of the traditional sense of the word to the Paretian concept.

The history of the rent concept and the analysis of taxation both support the contention that *rent is best defined as the opportunity cost of land at the level of the firm*; that is, rent is the market value offered for the use of land (Worcester 1946: 270–271).

This definition has several consequences:

- (1) The definition of rent in terms of market-determined opportunity cost excludes from rent any surplus returns over the market rent that an individual land-user may be able to secure through superior entrepreneurial ability. Thus, if one land-user can obtain a net surplus over labor and capital costs of \$200, say, from a given acre while the next most efficient user can only obtain a surplus of \$150, say, then the opportunity cost of the land under a market auction will be just over \$150. The real market, and the definition proposed above, would impute the difference between the \$200 and actual rent to the superior entrepreneurial ability of that most efficient land-user: it would not be included in rent. This point is of some practical

importance in meeting the objection that land value taxation would discourage entrepreneurial efforts to put land to better uses.

- (2) The proposed definition of rent links it firmly with the concept of “land”; rent is perceived as a payment for the free gifts of nature, in contrast to quasi-rents paid for the use of *produced* means of production. Land in contrast to capital is, by definition, inelastic in supply. So-called made land is really capital sunk into land and, while capital can be substituted for the use of land, the definition of land as the non-produced means of production excludes the idea that land is reproducible.
- (3) Land is exogenously given. Neither its existence nor its value depends upon the actions of individual owners. By contrast, capital and labor are endogenously supplied by individuals within an economic system. Thus, there is a legitimate sense in which we can speak of land rent as the only long-run surplus over real cost. In an ultimate sense, there is no such thing as a closed economy. Capital can disappear by emigration and dis-saving, while labor supply can be modified by the choice of leisure or easier occupations and by emigration and changes in birth rates. This was, I think, Marshall’s (BK VI, Ch. 2, §5, ¶21; App. K, §2, ¶7–8) point when he argued that land rent is an enduring surplus in a way other surpluses are not. It is not customary in modern economic theory to think in these terms, but there is validity to Marshall’s (BK VI, Ch. 5, §7, ¶22–25; Ch. 11, §1, ¶1–3) emphasis on long-run supply responses by labor and capital, in contrast to land. One does not have to subscribe to a strict classical subsistence wage theory to note demographic responses to economic conditions. The 1950s British “brain drain” and changes in birth rates in the Depression come readily to mind.
- (4) There are good reasons for distinguishing land rent from other surpluses. Other seeming surpluses are either not surpluses or are transitory. Still other surpluses, if they exist, cannot be identified. In contrast, land rent *can* be identified as a surplus over the expenses laid out for the real costs of production, for the “exertions of all the different kinds of labor that are directly

or indirectly involved . . . together with the abstinences or rather the waitings required for saving the capital used" (Marshall, BK V, Ch. 3, §2, ¶5). The idea of real cost goes back to Adam Smith and even before him, as Marshall (App. B, §3, ¶13; [1890] (1961): 755) was well aware. Just as modern neo-Austrians impute net incomes to labor and land alone, there is an old tradition that contrasts labor (the active factor) with land (the passive, costless, factor of production) (Bladen 1974: 3–6).

A Review of Competing Rent Concepts

In attempting to develop more closely the implications of the old idea that has just been endorsed, that rent is the return to land, let us review the various approaches to rent we have surveyed, and note to what extent they are compatible in whole or in part with this classical concept of rent.

- (1) The idea that rent is due to the bounty of nature is more correct than commonly believed. Marshall (BK VI, Ch. 9, §4, ¶12–13) is surely too severe when he declares that "the producer's surplus from land is not evidence of the greatness of the bounty of nature, as was held by the Physiocrats and in a more modified form by Adam Smith: it is evidence of the limitations of that bounty." Yet, Marshall (BK IV, Ch. 1, §1, ¶1) himself has spoken of land as the "material and the forces which Nature gives freely for man's aid." A normal person regards something for nothing as indeed a bonus and is ill-regarded should he have the bad manners to expect more.
- (2) We earlier observed that the notion of rent as a payment for the use of the inherent fertility of the soil is too narrow in that it ignores the influence of location and opens doubts as to whether payments for exhaustible natural resources are rents.
- (3) The identification of rent with diminishing returns, as we noted above, is essentially mistaken.
- (4) The perception that rent is a demand-determined or monopoly price, that is, a price not governed by the cost of original production of land, is one that naturally follows from the idea of "free gifts of nature."

- (5) Land rent represents a unique surplus. This follows from the observation that, in the long run, as Marshall (App. K, §2, ¶6–8) noted, it is *the only income that represents a surplus over the real costs of its production*. The Physiocratic argument that only land rent represents a net product is quite as logical as the elimination of depreciation and intermediate sales and purchases in modern national accounting practice. Moreover, it furnishes a welfare criterion, namely, that public policy should aim to maximize aggregate land values (the present value of land rents) rather than the commonly accepted welfare rule of maximizing net national income over time.¹⁰ This choice of welfare criterion avoids the problem of the cost of foregone leisure, which the current criterion has to face. Adam Smith (BK I, Ch. 11, ¶237) had perhaps something of this in mind when he remarked

The land constitutes by far the greatest, the most important, and the most durable part of the wealth of every extensive country. It may surely be of some use, or, at least, it may give some satisfaction to the Public, to have so decisive a proof of the increasing value of by far the greatest, the most important, and the most durable part of its wealth.

- (6) Given that land is taken to mean the free gifts of nature, it follows that, in the aggregate, rent is not a cost of production, since no payment was necessary to elicit land's coming into existence. This in no way contradicts the assertion that land has alternative uses at the micro level and that its remuneration in one use represents a cost to another use. Rent serves to ration land, not to call it into existence.
- (7) Rent is not necessarily, however, a payment for the "original and indestructible powers of the soil." We noted above that land rent, because of the spatial character of land, can capture the effects of externalities. Rent remains, indeed, a payment for the use of the free gifts of nature, but the value (though not the physical existence) of those gifts is inevitably dependent on human actions. We also noted that exhaustible natural resources also yield rents, albeit as capitalized amounts, and that they too fall under the heading of land. Thus, a virgin forest is land while a planted one is capital; the distinction between land and capital always following that between non-produced and produced means of

production and the parallel distinction between rent and quasi-rent always turning on the concept of what is, or is not, a real cost of production.

The above views of rent have included those ideas that harmonize with the concepts of land and its rent found in classical political economy. Their reiteration is neither original nor would be desirable were it not necessary to draw clear attention to what is not "rent" in the classical sense.

- (1) Rent does not encompass any infra-marginal surplus. It is not regarded as having its alpha and omega in the principle of differential advantage. In spite of J. S. Mill's analogies it is clear that he, too, regarded the unique character of rent as deriving from the original free gift by nature of its supply.
- (2) The Paretian concept of rent is irrelevant to the classical view of things and has no bearing on the development of the theory of land value taxation. Paretian rents are better described as "factor profits" (Worcester 1946: 271).
- (3) Attempts made by writers such as J. B. Clark, Frank Fetter, and F. H. Knight to reduce the idea of rent to rental are equally distant from classical concerns. "Rent" in the classical sense is, indeed, a flow of factor service, but not all such flows are "rent."
- (4) Nor does the idea of quasi-rent justify the assimilation of the earnings of land and capital under one head, as Marshall himself clearly warned. The time-worn example of the alleged rent earned by works of art persists despite protests of its irrelevance. As J. E. Cairnes (1873: 231) quipped: "Surely the case must be felt to be desperate when such an argument is seriously put forward." We can reasonably assume that artistic creation would be diminished if paintings were taxed. Patronage of the arts would also decline. Perhaps it will be contended that a large portion of the price of a painting becomes rent a sufficient number of years after the death of the artist. That certainly does not fit with the concept of "rent" in classical political economy, which recognized value only at the time of production of goods and services. The supposed "rent" of paintings merely illustrates that taxes delayed are taxes denied

and that taxes denied long enough are virtually no taxes. The absence of taxes has, predictably enough, no effect on productive effort.

- (5) Finally, the suggestion that land rent can be viewed as a reward for risk is equally foreign to the classical definition of rent in terms of the real cost of production of land services. If to discover land is to “produce” it, why is not to discover a better use for land equally to “produce” it? And why not go further and say that a buyer “produces” a product when his bid is based on a use known only to him?

Leaving aside such conundrums, let us reiterate that the capitalist is the one who sinks money irretrievably in a project and thereby bears risk in a sense that labor and land do not.

Chapter 3

The Terms of Classical Tax Analysis

I have heard a man calculating the revenue of a province by saying: There are so many men; each man, in order to live, spends so many sous per day, therefore the province has so much revenue. Tax a similar revenue proportionately, and these people must die of hunger, or at least from misery. I believe that it all comes back to the great question of the soup of the Franciscans; it is in them when they have eaten it. It is the same with the so-called revenue from industry. When a man has eaten the reward proportioned to his talent or to the usefulness of his service, he has nothing left, and taxation cannot be levied on nothing.

A. R. J. Turgot ([1763] 1977: 98, n. 5)

3.1. Feudal Wisdom: Funding the State Without Taxation

Taxation is as familiar and inevitable to modern people as death and, indeed, probably more familiar. For medieval people, taxation was an extraordinary occurrence. As Viner (1978: 104–105) explains:

To understand the Scholastic treatment of taxes one must bear in mind that taxation, as we now know it—namely, as a routine, normal and respectable method of providing for the financial needs of government—is a comparatively modern phenomenon. In feudal times, on the other hand, rulers derived their revenues mainly from personal estates, customary tributes and dues paid by their vassals, tolls on strangers and on traffic on roads and rivers, war booty, rapine and piracy, and, *in times of special need*, from “aids,” subventions, donations, etc., in form at least voluntarily granted to them. . . . All of St. Thomas’ references to taxation that I know of treat it as a more or less extraordinary act of a ruler which is as likely as not to be morally illicit. [italics added]

Since taxes were often regarded as legalized theft, popes could threaten to excommunicate rulers who sought to impose them, and moralists could excuse those who evaded paying what was not seen as Caesar’s “due” (Viner 1978: 105–106).

Max Beer ([1939] 1966: 167) has shown that the essence of Physiocracy can be seen as an attempt

to re-create a medieval society which should be of greater permanency and excellence than the old one had been. . . . There are in this ideal realm

three estates, similar to those of the old feudal society: (i) the nobility and the clergy, who own the lands and bear the whole burden of administration, defense and spiritual care. This burden is represented by the single tax of the landowners, from which the State expenditure is met.¹¹

The Physiocrats emphasized natural law. Quesnay ([1759] 1972: xi, 1–5) and Mirabeau (1760: 48–49, 58) carefully distinguished “impôt,” “imposition,” and “spoliation.” Quesnay ([1759] 1972: 19) clearly viewed taxation per se as the natural revenue to the state from its ultimate ownership of natural resources. That was an idea at once both radical and reactionary (Higgs 1897: 71–73; George [1898] 1981: BK II, Ch. 4, ¶3–4).

When Adam Smith began his discussion of the sources of state revenue, it is not accidental that he commenced with a review of non-tax funds (such as landed estates) and that, when he does discuss taxation, he turns first to a tax on land rent. Smith (BK I, Ch. 10, ¶102; BK V, Ch. 1, ¶211, ¶230) accepts, as we shall see later, the Physiocratic doctrine that a tax on land rent will be capitalized into a lower private land value and remarks that tithes and church lands have at times served as a mode of directly funding social services, representing, in effect, a substitute for unfunded taxes.

After Smith, the question of funded versus unfunded sources of state revenue tended to slip into the background. Whereas the Physiocrats (and sometimes Smith) conceived of taxation in terms of a natural revenue from the state's ultimate landownership, Say (BK III, Ch. 8, §1, ¶2, ¶10) explicitly ignored the obvious problem of the conflict between taxation and property rights: “In the science of political economy, taxation must be considered as a matter of fact and not of right. . . . The best scheme of finance is, to spend as little as possible; and the best tax is always the lightest.” Ricardo (Ch. 9, ¶29; Ch. 14, ¶6; Ch. 16, ¶45) agreed that “taxation under every form presents but a choice of evil” and endorsed “the golden maxim of M. Say.” For Ricardo, there is no natural fund to supply the state, all property is equally sacred, and all taxation is a necessary evil.

After J. S. Mill and Henry George, however, the question was reopened and the following statement by Davenport (1917: 1) sums it up neatly:

I believe that the principle at the heart of the single tax agitation—that the fiscal revenues should be derived from the social estates (the regalia principle in ultimate essence), from sources to which the justifications for private property do not attach—is right and vastly important. The rents of mines, forests, waterfalls, franchises, town lots, and also, if practicable, of agricultural lands should be retained as fiscal properties. Not a society single-taxed, but a society free from all taxes of any sort, is the logic of the principle—a goal well within the reach of a wise and provident public policy.

The principle that land forms a “common wealth” and that it can serve as the basis of public revenue was still alive and well in the 19th century when Australia and New Zealand were being settled by farmers. Reeves (1903: Ch. VI) discusses land engrossment by squatters in Australia and the need to break up large estates for closer settlement. The colonists brought English law with them to Australia, which included the principle that tenants on Crown lands would pay a quit-rent for the privilege of occupying the land. Hence increasing the revenues collected from squatters was not subject to Parliamentary approval—*because those revenues were not taxes*. As Governor Gipps retorted to William Charles Wentworth: “To take a payment for the use of Crown land is [not] to impose a tax” (Rusden 1883: 377).¹² If one starts with the view that the “common wealth” belongs to the state, in trust for all citizens, then public revenues derived from that wealth should not be considered taxes.

This view, that taxation should be looked at as an appropriation of specific types of factor earnings rather than as a levy upon persons, causes the ethical arguments for land value taxation to be set in terms of entitlement to natural resources rather than in terms of utilitarian notions of horizontal equity. We shall see later that ultimately this results from a clash between natural law and utilitarian ideas of distributive justice.

From the point of view of economic efficiency and capital formation we shall see that revenues funded for the state by the ownership of land have singular advantages that taxes levied against labor and capital, not being the property of the state, do not have. Income received by the state from property ownership no more distorts relative prices *per se* than it would in the hands of another owner. Moreover, to the extent that individuals cannot satisfy their savings

needs by landownership, they are encouraged to produce real capital. In contrast, other taxes may distort relative prices and reduce the after-tax reward to investors, while public debts or social security schemes tend to discourage real capital formation by substituting a fiduciary asset for real assets in investor portfolios.¹³ Feudal fiscal theory is perhaps more modern than one realizes.

3.2. The “Ability to Pay” Principle

Adam Smith (BK V, Ch. 2, ¶25) is often cited for his first maxim of taxation: “The subjects of every state ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities.” He is also interpreted as favoring some kind of utilitarian interpersonal equity. Thus, J. S. Mill (BK V, Ch. 2, §2, ¶7–8) took Smith to favor equality of sacrifice. Yet Mill (BK V, Ch. 2, §1, ¶2–4) failed to include in his abbreviated quotation the following comment by Smith (BK V, Ch. 2, ¶25):

Every tax, it must be observed once for all, which falls finally upon one only of the three sorts of revenue above-mentioned, is necessarily unequal, in so far as it does not affect the other two. In the following examination of different taxes, I shall seldom take much further notice of this sort of inequality.

If equality of sacrifice was what Smith had in mind, why did he feel so disinclined to pursue it?

The answer, I suggest, lies in the observation that “ability to pay” has been used in an older and different sense from the Benthamite interpretation. Whereas the utilitarian interpretation is a proposition of distributive justice, what was in the minds of the Physiocrats and Adam Smith when they talked about “ability to pay” was ability to bear a tax. For them the question was: Does this or that tax tend to destroy or diminish the base upon which it is levied?

Thus Quesnay ([1759] 1972: 4–5, 22) saw the problem of taxation as one of properly defining national income, net of wage and capital costs, and not allowing taxation to be levied upon these costs since it would be self-defeating. Similarly, Turgot ([1788] 1973: 178, 180) rejected the taxation of interest because interest is a cost of production and such a tax would reduce its base. Smith (BK V, Ch. 2, ¶191) also

opposed taxing interest, for the same reason. In his *Plan for a Paper on Taxation in General*, Turgot ([1763] 1977: 97–101, 104) stressed the “necessity of never injuring the sources of wealth,” judged non-land taxes as undermining themselves, rejected taxes on persons rather than property, and emphasized that only *net* income can bear a tax without being diminished.

We see that Adam Smith is much closer to the Physiocrats than to the Benthamites. In Smith’s *Theory of Moral Sentiments* ([1759] 1777), “utility” means “appropriateness” rather than “desiredness.” Smith’s general discussion of taxes reflects the “ability to bear” criterion as his underlying meaning of “ability to pay.” Smith (BK V, Ch. 2, ¶75–76, ¶137, 154) differs from the Physiocrats in his tax recommendations only in suggesting that there are other surpluses than agricultural rent: he would thus tax urban, as well as agricultural, rents, also luxuries and sinecures. In all these cases he is guided by his analysis of long-run tax incidence and shifting rather than by any concept of horizontal equity.

The interpretation of “ability to pay” as “ability to bear” was briefly reflected by Ricardo (Ch. 26, ¶3), when he argued that taxes can only be laid on net, not gross, revenue (which he identifies as rent plus profits). It remained for Henry George (1879: BK VIII, Ch. 3, ¶7, 26–27) and J. A. Hobson (1919: 7, 9–10, 24–26) to reemphasize this canon of taxation as meaning that taxes can fall only upon surpluses (Groves 1974: 123–129, 135–139).

There are thus two strands of interpretation of “ability to pay” in classical political economy: the Physiocratic-Smithian positive canon of “ability to bear,” which underlies all the economic (as opposed to ethical) arguments for land value taxation, and J. S. Mill’s normative prescription of “equality of sacrifice.” Correspondingly, the older strand sees its normative questions arising from the conflict between taxation and private property, whereas the utilitarian view subordinates property rights to the ethical goal of maximizing aggregate utility. “Optimal taxation” theory represents an attempt to merge these two strands by keeping the major utilitarian norm of maximizing utility but linking it with the “ability to bear” rather than the “equality of sacrifice” interpretation. To get back to Quesnay, one has only to link “utility” to “income” to “net product.”

3.3. The “Benefit” Principle

The benefit principle has generally been used by the advocates of land value taxation. It is therefore of some interest to survey the senses in which it has been used. The most common sense in which it has been understood is that of the “quid pro quo” or what one might call the idea of *posterior* benefit.

On this view, taxes must be spent to benefit those who pay. It is not contended that they have received any *antecedent* benefit. Since J. S. Mill (BK V, Ch. 2, §2) felt this notion implies regressive taxation, he rejected it.

However, there is another sense in which the term has been understood: that of *prior* benefit (the feudal theory). On this view it is not necessary that the state expend its tax revenues for the benefit of the precise taxpayers if it has *already* provided them with the benefit for which the tax is a charge.

Thus, according to prior benefit theory, the right to occupy land is a franchise and a benefit to the owner (Carlton 1907: 57, where E. R. A. Seligman’s definition of franchise is cited). The higher the rent the land commands, the greater the benefit the owner enjoys from society, since rent is a community-created externality. The Crown, as trustee for the community, can therefore appropriate the rent as a charge for this prior benefit. Of course, if it spends tax revenue so as to raise the rent, it is entitled to take this posterior benefit as well. Conversely, if the tax is wasted, the tax base naturally shrinks, via tax capitalization, so that the owners are not taxed on a greater benefit than they actually receive.

The origins of both these ideas of benefit are found in Adam Smith. In regard to public goods, Smith (BK V, Ch. 1, ¶237, 88) enunciates the idea of posterior benefit: “It is unjust that the whole society should contribute towards an expense of which the benefit is confined to a part of the society.”

More than a hint of the feudal idea of prior benefit is included in Smith’s (BK V, Ch. 2, ¶25) elaboration of the ability to pay principle: subjects should contribute

in proportion to the revenue which they respectively enjoy under the protection of the state. The expense of government to the individuals of a

great nation, is like the expense of management to the joint tenants of a great estate, who are all obliged to contribute in proportion to their respective interests in the estate.

This hint of feudal fiscal theory is reinforced by Smith's (BK V, Ch. 2, ¶76) later remarks that ground rents are specially suitable for taxation because

ground rents, so far as they exceed the ordinary rent of land, are altogether owing to the good government of the sovereign, which by protecting the industry either of the whole people, or of the inhabitants of some particular place, enables them to pay so much more than its real value for the ground. . . . Nothing can be more reasonable than that a fund which owes its existence to the good government of the state, should be taxed peculiarly, or should contribute something more than the greater part of other funds, towards the support of that government.

Lord Douglas of Barloch (1961: 64–65) stressed the “benefit” aspect of Smith's thought, as opposed to the conventional “ability to pay” interpretation.

J. S. Mill (BK V, Ch. 2, §5–6) himself modified his emphasis on equality of sacrifice to stress that a tax on rent could simply represent a rent charge in favor of the public to recover the prior benefit yielded to landlords by the community-created unearned increment.

Henry George (1879: BK VII, Ch. 1, ¶27), working from the ethical theory of land as inalienable common property, argued the prior benefit case for rent taxation most forcefully: “the value of land expresses in exact and tangible form the right of the community in land held by an individual; and rent expresses the exact amount which the individual should pay to the community to satisfy the equal rights of all other members of the community.” George (1879: BK VIII, Ch. 3, ¶27) noted that Adam Smith spoke of incomes enjoyed under the protection of the state and argued that “the basis of this idea is evidently that the enjoyment of property is made possible by the state—that there is a value created and maintained by the community. . . . Now, of what values is this true? Only of the value of land.” This conclusion rests upon his idea that rent captures natural community-created externalities, which labor and capital cannot, since the mobile factors are subject to competition.

Marshall (BK V, Ch. 10, §4, ¶17) acknowledged the role played by externality in his “public value” of land. Yet Marshall (Appx. G, §1, ¶2;

§9, ¶32) chose to restrict the idea of benefit to the case of posterior benefit exemplified by “beneficial” rates.

The relevance of these arguments to the theory of local public goods is apparent: government revenue requirements should not be above or below the amount of land rent. Take, for example, the provision of police protection: no police, no property values, but too many police paid for out of rent taxes represents an onerous rate and depresses rent just as wasteful expenditures would. In between, there is an optimum where incremental public expenditure just pays for itself by making labor and capital more productive. This excess productivity is appropriated by rent, which is thus maximized. This, then, is the process by which some of Adam Smith’s “unproductive laborers” create a value and why he could argue rent was due to the wise government of the sovereign.

3.4. Excess Burden

Political economy owes its origins to the attempts of the Physiocrats to deal with evident excess burdens imposed upon the people of France by her system of taxation.¹⁴ Unlike Ricardo (Preface, ¶1–3; Ch. 20, ¶2–4), who cared primarily about the relative shares of rent, wages, and profit in a given “value,” the Physiocrats and Smith were much more interested in the growth of what Ricardo called “riches.” They and many of their successors were much more interested in the suboptimality and excess burden that results when a tax drives a wedge between product prices and factor returns. They were interested in this excess burden in a general-equilibrium, rather than a partial-equilibrium, setting. This concern for welfare loss due to artificial divergences of price from cost is illustrated by Smith’s parallel reasoning in regard to the welfare losses of monopoly and taxation.

Neither Smith nor the Physiocrats were in the habit of assuming fixed supplies of capital or labor. They also did not separate the question of incidence from that of excess burden. However, they discussed incidence in terms of after-tax factor rewards (or in terms of “pseudo-distribution”) rather than in terms of after-tax relative shares in the whole national income. For them, neutrality did not mean the absence of alteration in the price solution to a general-equilibrium

system. No tax can be neutral in that sense because of its income effects on saving. Neutrality for them meant the avoidance of a tax-induced wedge between price and cost. Finally, Smith and the Physiocrats agreed that such tax-induced distortions would reduce aggregate rent and lower national income. Aggregate rent served as a welfare criterion for them, since it is the only “costless” part of the national income.

The unique freedom of rent taxation from excess burden was central to Quesnay’s ([1759] 1972: 1, n.) views, as illustrated by the following comment, which is similar to many others he expressed:

A properly organized tax, i.e., a tax which does not degenerate into *spoliation* by reason of a bad form of assessment, should be regarded as a portion of revenue taken out of the net product [land rent] . . . for otherwise . . . it could imperceptibly ruin everything before the administration became aware of it. Thus the contribution should be assessed only on the revenue, i.e. on the annual net product . . . and not on the advances of husbandmen, or on laborers, or on the sale of commodities, for in the latter cases it is destructive. On the advances of husbandmen it would represent not taxation but spoliation, which would wipe out reproduction, cause the land to deteriorate, and ruin the farmers, the proprietors, and the state. [emphasis in original]

Adam Smith (BK V, Ch. 2, ¶28) reformulated this idea in his dictum that “every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible, over and above what it brings into the public treasury.” A tax could have this excess burden because “it may obstruct the industry of the people, and discourage them from applying to certain branches of business which might give maintenance and employment to great multitudes. While it obliges the people to pay, it may thus diminish, or perhaps destroy some of the funds, which might enable them more easily to do so.”

Turgot ([1788] 1973: 178) had rejected the taxation of interest, since capital can emigrate. Smith (BK V, Ch. 2, ¶88, 91) also adopted this principle. Smith (BK V, Ch. 2, ¶132–133, 150, 154, 189) argued that taxes on wages or necessities were to be rejected because aggregate rent and output would be less than if the same amount were raised by taxes on rent and luxuries. Unlike the Physiocrats, Smith seemed to feel that taxes on sources other than rent could avoid the

problem of excess burden, which meant that other surpluses could be safely tapped. Thus Smith (BK V, Ch. 2, ¶137, 151) recommended taxation of sinecures and luxuries. However, his contention that a tax upon luxuries would fall upon consumers without effects upon wages, profits, and rents seems to be contradicted by his later admission that the taxation of luxuries does indeed generate excess burdens (BK V, Ch. 2, ¶205–208).

Turgot ([1763] 1977: 98–101) was well aware of the nature of excess burden at a partial equilibrium level. Turgot ([1767b] 1977: 124) held the Physiocratic view that the theory of taxation was a corollary of a correct definition of national income. Therefore, we must turn to Smith to see a closer analysis of how excess burden is generated by taxes that drive a wedge between price and cost and thus violate the necessary conditions for Pareto-optimality.¹⁵

The key to understanding Smith's treatment of excess burden is to return to his definitions of monopoly, which essentially depend on the idea of a price in excess of cost. In the case of land, such a surplus in the form of rent is natural. In the case of artificial monopolies, however, capital in a privileged position is able to secure a super-normal profit, to the detriment of the consumer. Smith (BK IV, Ch. 7, ¶174) enunciates the proposition that free competition will secure Pareto-optimality in the following terms:

It is thus [by the equalization of the rate of profit] that the private interests and passions of individuals naturally dispose them to turn their stock towards the employments which in ordinary cases are most advantageous to society. But if from this natural preference they should turn too much of it towards those employments, the fall of profit in them and the rise of it in all others immediately dispose them to alter this faulty distribution. Without any intervention of law, therefore, the private interests and passions of men naturally lead them to divide and distribute the stock of every society . . . as nearly as possible in the proportion which is most agreeable to the interest of the whole society.

Smith's (BK IV, Ch. 7, ¶175–180) objection to the mercantile system was that it necessarily deranged this beneficial result through various types of monopoly. Smith (BK V, Ch. 1, ¶119; BK I, Ch. 10, ¶80) argued that artificial monopoly represented an absurd kind of tax that raised price above cost and thereby prevented the best allocation of

resources. His analysis of the manner in which excess burden arises is thus identical for monopolies and bad taxes.

For example, Smith (BK V, Ch. 2, ¶107, 35–36, 172), argued: 1) a tax on profits in one industry will derange a nation's stock, 2) taxes upon necessities are like an artificial poverty of soil and a "curse" that only a rich country can afford, and 3) the wider the gap between price and cost that a levy creates, the more it becomes an instrument of monopoly and excess burden rather than of revenue.

Aggregate Rent as a Welfare Criterion

We have previously seen that the Physiocrats and Turgot regarded agricultural rent as the only true national income, and hence the obvious quantity for economic policy to maximize (Quesnay [1759] 1972: 6, 12, 17; Turgot [1788] 1973: 180; [1763] 1977: 102–104). They did not seem to regard urban rent similarly as net revenue, though Turgot was in favor of taxing it as well (Quesnay [1759] 1972: 7; Turgot [1767a] 1977: 114).

Adam Smith rejected their definition of national income and formulated the modern definition of national income as rent plus wages plus profits. However, he realized that, when it came to taxation policy, he needed the concept of taxable surplus to serve for his analysis, as the *produit net* had served for the Physiocrats. Smith (BK V, Ch. 2, ¶31, 74, 75, 137) was not entirely clear what he thought the surplus was, but he did so regard agricultural and urban rent and other incomes not subject to competitive pricing.

What is abundantly clear, however, is that in his discussions of the general-equilibrium excess burden imposed by various taxes, Smith turned back towards the welfare criterion of the Physiocrats: Which tax system is least injurious to aggregate rent?

In his chapter on rent, Adam Smith (BK I, Ch. 11, ¶265–262) explained that all economic progress must result in a rise in aggregate rents. Conversely, restrictions such as the monopoly of the colonial trade depress aggregate rent as well as aggregate wages and profits (Smith, BK IV, Ch. 7, ¶144–146). Likewise any attempt to favor agriculture by discouraging manufacturing will also lower aggregate rents (Smith, BK IV, Ch. 9, ¶48). In the same vein, Smith (BK V,

Ch. 2, ¶91, 107) argued that a tax on interest will lower rents and wages as capital emigrates. Similarly, taxes on wages will lower rents, as will taxes on necessities (Smith, BK V, Ch. 2, ¶132, 150, 154, 189). In summary, Smith is less clear than the Physiocrats about what is taxable surplus, but he does regard the impact of a tax system on rents as a matter of great importance in forming his judgments.

When we come to Ricardo, the concern with excess burden tends to drop out of sight. Ricardo (Ch. 20, ¶10–16) criticizes J. B. Say for his partial-equilibrium approach to excess burden and points out that capital driven out of one industry will be employed in another. This leads Ricardo (Ch. 16, ¶11–21, Ch. 17, ¶2n.) to minimize the problem. Say (BK III, Ch. 8, §1, ¶21 n.76, ¶15, ¶40; §2, ¶94) was quick to see it. However, Ricardo (Ch. 26, ¶3–8) also had to have a welfare criterion to measure taxable surplus, and he criticized Smith for vagueness on this topic, arguing that the taxable net revenue of a community consists of aggregate profits plus rent.

In fact, Smith was closer to Ricardo's position than Ricardo realized (Hollander 1973: 204, 279). Once the idea of net revenue or taxable surplus was severed from the identification with land rent it was to undergo successive metamorphoses, notably at the hands of J. A. Hobson (1919: Ch. 2) and Abba Lerner (1944: Ch. 19).

However, it is worthwhile to summarize what seems to be the essence of the argument that the maximization of land rent is the appropriate social goal. Samuelson (1977: 43) recognized that this was the logic of Smith's arguments when he commented: "In effect, Smith's system maximizes rent!" Of course, Smith's purpose was not necessarily to suggest that rents should be maximized for the benefit of the landholding class. He merely observed that good economic policy would inevitably lead to the rapid growth of economic rent, regardless of who benefited from it. Since the economic surplus results from wise government policies, land rent is a peculiarly appropriate object of taxation.

Suppose that in a homogeneous community, utility is a function of output ($U = U(Q)$), and that output is a function of land (R), labor (L), and capital (K). Now, the Physiocrats and Smith assumed that population and labor supply were responsive to the wage rate and capital could migrate whereas land was fixed. Thus

$Q = Q(R, L, K)$

$R = R$, a constant

$L = L(w)$, an increasing function of the wage rate

and $K = K(i)$, an increasing function of the rate of interest

Now to increase welfare, we must increase output, Q ; but since land, R , is fixed, this can only be done by increasing labor supplied, L , and/or capital, K . However, we are given, by subsistence requirements and the threat of emigration, exogenous prices, w^* and i^* for labor and capital. Any attempt to tax labor or capital to returns below these will lead to some factor withdrawal, lower output, lower rents, and lower welfare.

Conversely, any attempt to subsidize capital and labor to increase output could only be done by taxes on rents. But the increased output must be less than the subsidies by the nature of the previous equilibrium. If an increase in labor or capital would have produced additional surplus (rent) before the subsidy, more of those inputs would already have been demanded, which means that the subsidy cannot produce a maximum level of output. In short, since rent is a surplus over labor and capital costs, capital and labor will only have ceased to be forthcoming when no more incremental surplus was being generated.

Such a converse implication is less obviously correct and less clearly to be found in classical writers. The statement regarding the absence of additional labor and capital is only true of the rent of marginal land, not of infra-marginal land. Suppose R is valued at r^* , when wages are w^* , and the rate of interest is i^* . If r^* is taxed and used to increase wages to \hat{w} , in this classical world, labor supply will expand to \hat{L} , and competition and fertility will force the wage rate actually received by laborers back to w^* . But total wage payments, total labor supply, total output, and total pre-tax rents will have increased nonetheless, though not necessarily on per capita basis.

On these assumptions, maximization of rents and national income amount to the same policy goal. Global excess burden is seen as the loss of output due to the loss of labor and capital resources to the domestic economy. It may be noted that neither the Physiocrats nor Smith asserted that capital or labor were infinitely elastic in supply at

these exogenous prices, w^* and i^* . This assumption was not necessary for them to conclude that there was a one-to-one correspondence between increased economic benefits and increased rents.

To sum up, the idea of global excess burden was a major concern of the Physiocrats and Smith. They shared the view that any tax that disturbs the equality of price and cost would diminish capital and labor supplies, or distort their employments, resulting in lower output, lower welfare, and lower land rents. On that basis, they argued that optimal policies maximize economic rents.

3.5. The Incidence of Taxation

We have seen that the Physiocrats and Smith, unlike Ricardo, tended to view incidence in terms of pre- and post-tax factor rewards and in terms of the aggregate levels of rent, wages, and profits.

The Physiocrats and Smith reckoned that national output would be at its highest if there were no distortions, whether due to taxes, tariffs, or other regulations, that upset the condition of price equals cost. Any tax that upset the conditions for a Pareto-optimum was to be condemned as an unthrifty tax that took more from the people than the sovereign gained.

As Turgot ([1788] 1973: 158, 178) put it, “if, through any disarrangement, whatever it may be, . . . the entrepreneurs cease to get back their advances together with the profit which they have a right to expect from them, it is obvious that they will be obliged to reduce their enterprises; . . . the amount of labor, the amount of consumption of the fruits of the earth, and the amount of production and of revenue will be reduced in like measure.”

Adam Smith (BK IV, Ch.9, ¶20, 24, 38, Ch. 7, ¶144, 146, 188), as we have seen, agreed with the Physiocrats that artificial enhancements or distortions of relative prices were destructive and that the replacement of monopoly by free competition would secure the greatest output for a nation. Smith, however, gave a more detailed account of incidence than Quesnay or Turgot. He followed Turgot's ([1763] 1977: 97–99) approach in setting out the problem of incidence as dependent upon a functional analysis of the effects of taxes on the different types of income (rent, wages, and profits). According to Smith (BK V,

Ch. 2, ¶23), many taxes “are not finally paid from the fund, or source of revenue, upon which it was intended they should fall.”

Smith then went on to show that such shifting will result if the introduction of a tax drives a wedge between an existing equality of price and cost. Conversely, shifting will not occur if the tax is levied upon a preexisting divergence of price from real cost. Smith was groping towards the idea that only taxes on surpluses cannot be shifted. While Smith (BK V, Ch. 2, ¶36, 48–49) agreed with the Physiocrats that a tax upon agricultural rent is a tax upon surplus and cannot be shifted, he declined to accept completely the doctrine that all taxes fall upon rent.

Among the taxes Smith (BK V, Ch. 2, ¶69, 91, 102, 107, 132–133, 150) considered as taxes upon costs and that would therefore be shifted are taxes upon building rents, upon interest, upon the profits of particular trades, and upon wages and necessities. In all these cases, the shifting mechanism is supposed to operate via the withdrawal of capital or labor from the taxed activities. Smith also noted that this withdrawal can mean the effects of a tax are passed backwards to lower rents as well as forward to increase commodity prices.

The taxes that Smith (BK V, Ch. 2, ¶48–49, 74–77, 137, 199) definitely stated would not be shifted were taxes upon agricultural and ground rents, sinecures, and commodities selling at a monopoly price. In all these cases, he argued that the tax simply shared in an existing surplus of price over real cost. Thus Smith stated (BK V, Ch. 2, ¶74) that “[a] tax upon ground rents would not raise the rents of houses. It would fall altogether upon the owner of the ground-rent, who acts as always as a monopolist, and exacts the greatest rent which can be got for the use of his ground.”

Similarly, Smith argued (BK V, Ch. 2, ¶137) that

the emoluments of offices are not, like those of trades and professions, regulated by the free competition of the market, and do not, therefore, always bear a just proportion to what the nature of the employment requires. They are, perhaps in most countries, higher than it requires . . . [They] can in most cases very well bear to be taxed.

Smith’s (BK V, Ch. 2, ¶205–208) basic argument that taxes will be shifted until they settle upon a surplus was well illustrated in his reasoning in regard to taxes on luxuries (shifted forward to take

surplus income) and on commodities at a monopoly price (shifted backwards to specialized factors). As Smith (BK V, Ch. 2, ¶199) explained:

When the ordinary price of any particular produce of land is at what may be called a monopoly price, a tax upon it necessarily reduces the rent and profit of the land which grows it. A tax upon the produce of those precious vineyards, of which the wine falls so much short of the effectual demand, that its price is always above the natural proportion to that of the produce of other equally fertile and equally well cultivated land, would necessarily reduce the rent and profit of those vineyards. The price of the wines being already the highest that could be got for the quantity commonly sent to market, it could not be raised higher without diminishing that quantity; and the quantity could not be diminished without still greater loss, because the lands could not be turned to any other equally valuable produce. The whole weight of the tax, therefore, would fall upon the rent and profit; properly upon the rent of the vineyard.

Smith (BK V, Ch. 2, ¶199) went on to apply the same argument to sugar and concluded that the price of sugar likewise “had, it seems, before the tax been a monopoly price; and the argument adduced to show that sugar was an improper subject of taxation [that the tax fell on the producers] demonstrated, perhaps, that it was a proper one; the gains of monopolists, whenever they can be come at, being certainly of all subjects the most proper.”

It may seem that Smith was not being consistent with his general view that monopolies should be abolished. In fairness, we note that he seems to have held the view that artificial monopolies and other barriers to trade should be abolished while the gains from natural monopolies should be taxed.

Smith’s difference with the Physiocrats seems to have derived from an idea that there are surplus elements in all incomes, not just rent. For that reason, Smith seemed to hold initially that taxes can ultimately fall in four places, upon rent, wages, and profits, or upon the consumer. Thus, Smith (BK V, Ch. 2, ¶154) says: “Taxes upon luxuries are finally paid by the consumers of the commodities taxed, without any retribution. They fall indifferently upon every species of revenue, the wages of labor, the profits of stock and the rent of land.”

The weakness of the argument that consumers represent a fourth category becomes evident when it is recalled that Smith insisted (BK

V, Ch. 2, ¶148, 208) that the distinction between luxuries and necessities is a matter of custom, that taxes on luxuries are admitted to have excess burdens due to excise effects, and that consumers are spenders of factor incomes.¹⁶ Smith (BK V, Ch. 2, ¶152) did not fully explain why this indirect tax on profits or wages would not have the same effect as direct taxes on wages or profits. Smith's argument was that expenditure on luxuries is a surplus part of wages over cost of production of laborers (the subsistence wage) and that a tax on luxuries is a voluntary tax.

Thus, Smith's doctrine of incidence may be summed up in the observation that taxes must fall upon surplus, that they will be shifted (albeit with an excess burden) until they rest upon surplus, and that land rent is not the only surplus. Correspondingly, Smith (BK II, Ch. 4, ¶17) and Turgot ([1788] 1973: 179) proposed that a tax falling on surplus would lower the value of the asset from which the surplus was derived by the process of tax capitalization. On the other hand, if a tax is levied upon a cost of production, shifting will occur as factors are redeployed to equalize after-tax rates of return. As Smith argued (BK V, Ch. 2, ¶88), if a factor is fixed in total supply, a general tax upon its reward could not be shifted. Thus, Smith's theory of tax incidence is not so far removed from that of the Physiocrats as it might at first seem (E. R. A. Seligman 1921: 142).

Ricardo attempted to overthrow Smith's analysis of incidence in which Smith had argued that taxes on profits, wages, and necessities could be shifted to rent. Ricardo (Ch. 12, ¶8–14) argued and Carl Shoup (1960: 60, 115, 136, 241, 250) concurs that, apart from a tax on pure land rent, taxes will fall upon profits and a tax on profits will not be shifted to rent. As C. Shoup (1960: 133) summarizes, Smith maintained that all taxes would be shifted till they fell upon surplus (rent, monopoly returns, or luxury expenditure). By contrast, according to C. Shoup (1960: 61, 136) and E. R. A. Seligman (1921: 150–151), Ricardo insisted, based on his analysis of value at the margin, that taxes (other than on rent) would be shifted until they fell upon profits and wealthy consumers.

Ricardo, however, failed to prove Smith wrong in his theory of incidence. As St. Clair (1957: 267–268) and C. Shoup (1960: 59) show, Ricardo paid little attention to the role of demand in altering the

margin of production. St. Clair (1957: 165–169) and Shoup (1960: 132–133) also remind us that Ricardo at times seemed to forget that when a tax is shifted to consumers in the form of higher prices, landlords' real rents must fall. Finally, Ricardo failed, as Senior and J. S. Mill noted, to recognize that if profits did bear taxes, the stationary state would be reached sooner with a correspondingly lower population and lower rents (C. Shoup 1960: 257; Mill 1872: BK V, Ch. 4, §4, ¶10–15). In the particular case of taxes upon agricultural produce, Smith maintained they are shifted back upon rent, while Ricardo objected that they are shifted forward to the consumer. We may note that:

- (1) Smith (BK V, Ch. 2, ¶59) admitted that cultivation will be discouraged, and Ricardo (Ch. 12, ¶9–14) concurred.
- (2) Smith (BK V, Ch. 2, ¶107), like Turgot ([1788] 1973: 123), assumed capital and land tended to be used in fixed proportions.

It would therefore seem to follow that the margin will indeed shift and rent will fall. J. B. Say (BK III, Ch. 8, §1, ¶15, 21, n.76), in turn, criticized Ricardo for disregarding the problem of excess burden. However, with respect to the questions of shifting and incidence, Say abandoned the attempts of the Physiocrats, Smith, and Ricardo to enunciate general-equilibrium conclusions and preferred the partial-equilibrium approach. Say (BK III, Ch. 8, §1, ¶34–35; §2, ¶64) accepted that all income above a subsistence minimum is a surplus available for taxation and, like Ricardo, he stressed equality of taxation and the necessity of not injuring capital. However, the argument for equality was presented on ethical grounds while the distinction between taxes on revenue and taxes on capital failed to distinguish between private and social capital.

In regard to incidence, Say (BK III, Ch. 8, §2, ¶85, n.98, ¶95) argued that in “a complex social organization the pressure of taxation is often imperceptible;” taxes will always be shifted and it is wrong to assert “as a general maxim, that taxation falls exclusively upon any specific class or classes of the community. It always falls upon those who can find no means of evasion . . .”¹⁷ Say (BK III, Ch. 8, §2, ¶92, n.102, ¶95) did, however, agree that a tax on rent cannot be shifted, though he did

not agree that all other taxes will be shifted back to rent. In Say, we find an abandonment of any attempt to deduce general macroeconomic laws of tax incidence based upon a functional division of national income into rent, wages, and profit, and upon the responsiveness of these factor supplies to after-tax rates of return. Tax incidence is handled purely at the microeconomic level.

J. S. Mill (BK V, Ch. 3, §3, ¶7–9; Ch. 4, §4, ¶14–16) largely followed Ricardo. However, he reverted to Smith's doctrine that taxes on agricultural produce and on profits ultimately cause rents to fall, since accumulation would be less, population less, and the Ricardian margin changed so that rents would also be less (E. R. A. Seligman 1921: BK II, Ch. 5, 196; Carl Shoup 1960: 257–259). As Mill noted (BK V, Ch. 3, §4, ¶13; Ch. 4, §4, ¶10–11), since taxes on (customary) wages and necessities are actually taxes upon profits, they, too, should have the same effect—a fall in rents. This concession by Mill to the arguments of the Physiocrats and Smith is, however, largely overshadowed by Mill's (BK V, Ch. 3, §4, ¶11–14; Ch. 2, §2, ¶7–8) idea that much of the remuneration for labor is a surplus over the customary subsistence wage and by his insistence, like Ricardo and Say, upon the general principle of equality in taxation on ethical grounds. In general, Mill (BK V, Ch. 3, ¶15–17) argues that all consumption expenditure above a subsistence minimum is a surplus available for taxation.

In summary, we may say that the essential message of classical tax analysis is that taxation must fall upon surplus and not upon costs. If it falls upon costs, shifting will occur and, in this process, excess burdens will be generated. It was universally agreed that land rent is a surplus, that a tax upon it cannot be shifted, and that such a tax will be capitalized to reduce land's private market selling price (though not its economic value). It was not agreed that rent was the *only* surplus, as the Physiocrats had asserted. Smith had thought the existence of luxury expenditure showed surpluses in wage and profit incomes. Ricardo argued that taxes must fall upon profits. Say denied general statements were possible, while J. S. Mill drew closer to Smith by arguing that rent was a surplus, as was consumption over the subsistence level. However, Mill's (BK V, Ch. 2, §4, ¶20–22) rejection of the taxation of savings would seem to suggest that interest was not a

surplus, and if wages were a customary subsistence, how was one to know how much of the earnings of labor was a surplus over this customary minimum and any costs of human capital?

The general conclusions of classical tax analysis are neatly summarized by Henry George (1879: BK VIII, Ch. 3, ¶2):

Taxation which lessens the reward of the producer necessarily lessens the incentive to production; taxation which is conditioned upon the act of production, or the use of any of the three factors of production, necessarily discourages production. Thus taxation which diminishes the earnings of the laborer or the returns of the capitalist tends to render the one less industrious and intelligent, the other less disposed to save and invest. . . . Taxation which falls upon labor *as* it is executed, wealth *as* it is used as capital, land *as* it is cultivated, will manifestly tend to discourage production much more powerfully than taxation to the same amount levied upon laborers, whether they work or play, upon wealth whether used productively or unproductively or upon land whether cultivated or left waste.

George (1879: BK VIII, Ch. 3, ¶6) went on to follow Adam Smith in arguing that the “class of taxes from which revenue may be derived without interference with production are taxes upon monopolies—for the profit of monopoly is in itself a tax levied upon production, and to tax it is simply to divert into the public coffers what production must in any event pay.”

This long history demonstrates that labor/leisure and consumption/saving choices and their impact upon tax policy are not questions of recent origin. The inability to shift a tax upon a monopolist or on “pure” profits is also a theorem of long standing. J. A. Hobson (1919: 25–26, 37–38) and A. P. Lerner (1944: 232–238) were well aware of this. The question in continual dispute has been: What in practice, constitutes the surplus of price in excess of cost—the characteristic feature of monopoly? To put it another way, are there surpluses in the long run, apart from land rent?

We have set out our reasons above for agreeing with Marshall that the answer to this question is in the negative, but there is another question that concerned some earlier writers: Can a tax be super-neutral? In other words, can a tax raise national income rather than lowering it?

3.6. Neutrality and Super-Neutrality

Taxes on economic rent or land value have been justified historically by their advocates as being neutral with respect to economic behavior. This appears to be received doctrine in the history of economic thought, but there is also a tradition that asserts the super-neutrality of land value taxation. That means levying such a tax would not only avoid harming productivity; it would actually raise national income and welfare.

To understand the source of this tradition we must, as usual, return to Adam Smith, who is generally regarded as asserting the proposition that free competition will, via the invisible hand, maximize economic welfare. He did, but with some rather important qualifications about systems of property rights necessary to ensure Pareto-optimality. For example, Smith rejected absolute or unmitigated private ownership of natural resources, which can result in suboptimal outcomes. To appreciate Smith's ambivalence toward private ownership, we must first consider both the over-use of common pool resources and the under-use of private property.

Private possession of land is essential to avoid dissipation of potential economic rent or its loss through over-exploitation of a common resource. Too many direct owners may degrade a resource by over-use, whereas collective owners may not be able to agree to a new use, such as developing a mine or oil field. Land may be privately held by individuals, joint tenants, trustees, or corporations (and sometimes on behalf of many others), but effective use of land requires that it be under the control of a sufficiently small number of holders who have a strong economic or fiduciary interest in the land being put to the best use and the capacity to make effective decisions to do so.

As J. B. Say (BK II, Ch. 9, §1, ¶3) realized, "paradoxical as it may seem at first sight, it is, nevertheless, perfectly true, that a man, who is himself no share-holder of land, is equally interested in its appropriation with the share-holder himself." The tragedy of the commons consists of an over-use of resources and the use of rent to cross-subsidize sub-marginal uses of labor and capital (Cannan 1907: 43; Gordon 1954: 131–132, 140–141; Gaffney 1967: 112–113). In fine, the existence of rent is necessary to allocate land, to avoid congestion externalities or

blocking behavior, and thus to ensure the most productive allocation of labor and capital by freeing up land for its highest and best use.

The question remains, however, in whom should the ultimate beneficial ownership of natural resources be vested—the individual or the community? Many economists, from Adam Smith through J. S. Mill and Henry George, have argued that private ownership of natural resources will result in a problem that is the converse of what happens to an unmanaged commons. Whereas the commons is over-used, private owners will tend to under-employ labor and capital in the development of superior natural resources. That phenomenon is due to speculative withholding of such resources by owners who hope to make gains from resale.

We are now ready to turn to Adam Smith and see his reasons for rejecting the notion that absolute private property in land is conducive to Pareto-optimality. The most obvious problem is the inter-generational one. Any system of absolute private property in land must respect entails and restrictive covenants,¹⁸ yet these may be utterly inappropriate for allocating land to its most productive use later (Carret 1890: 99–106). Entails, said Smith (BK III, Ch. 2, ¶6), “are founded upon the most absurd of all suppositions, the supposition that every successive generation of men have not an equal right to the earth and to all that it possesses; but that the property of the present generation should be restrained and regulated according to the fancy of those who died perhaps five hundred years ago.”¹⁹ Thus, said Smith (BK III, Ch. 2, ¶2, 7), great tracts of land that have been engrossed are prevented from subdivision and more intensive cultivation. The result, Smith (BK III, Ch. 2, ¶19) argued, is that land prices are kept artificially high by these regulations that “keep so much land out of the market . . . that what is sold always sells at a monopoly price.” Smith (BK III, Ch. 2, ¶19) therefore advocated abolition of entails and primogeniture to secure a free market in land, increasing its productivity.

J. S. Mill (BK V, Ch. 9, §3, ¶11–13) seconded Smith’s argument. However, Smith went further in his rejection of absolute private property in land as not being conducive to Pareto-optimality. Not only would Smith relax the grip of past owners, he would also shake off the grasping hands of living landholders who would not use their lands. Smith (BK IV, Ch. 7, ¶40–41) argued that plenty of good land and

liberty are the great causes of colonial prosperity and that although the English colonies have less good land than the Spanish and Portuguese colonies, the English colonies have prospered:

First, the engrossing of uncultivated land, though it has by no means been prevented altogether, has been more restrained in the English colonies than in any other. The colony law which imposes upon every proprietor the obligation of improving and cultivating, within a limited time, a certain proportion of his lands, and which, in case of failure, declares those neglected lands grantable to any other person; though it has not, perhaps, been very strictly executed, has, however, had some effect. . . . The plenty and cheapness of good land, it has already been observed, are the principal causes of the rapid prosperity of new colonies. The engrossing of land, in effect destroys this plenty and cheapness. The engrossing of uncultivated land, besides, is the greatest obstruction to its improvement.²⁰

Edward Gibbon Wakefield took apparent exception to Adam Smith's view that "plenty and cheapness of good land" was the cause of colonial prosperity. On the contrary, Wakefield "pleaded for a sufficiently restrictive price—a relatively high price—on the colonial lands. This price above the free market price was necessary to prevent the immigrants from becoming landowners too soon . . . For Wakefield the history of colonial failure was replete with extensive land grants and sale of land at outrageously low prices, encouraging dispersion over the land in such a fashion as to preclude an effective division of labor" (Kittrell 1966: 146).

The operative motive for such suboptimal behavior was that every immigrant in becoming a landowner sought the future benefit of the unearned increment to be generated by future expected colonial growth. Smith had realized that land speculation could artificially force labor and capital to worse land by holding better land out of use. Wakefield was arguing that the prospect of an unearned increment from cheaply sold Crown land could lure capital and labor to prematurely settle on less productive lands. This would mean lower rates of wages and profits in the colony and hence would strangle the very inflow of labor and capital necessary to generate that future increment (Kittrell 1966: 146). In short, fee-simple grants of land as unencumbered private property would not lead to Pareto-optimality.

J. S. Mill, as we have seen above, endorsed Wakefield's criticism of *laissez-faire* in this case. Just as in the case of the overexploitation of

an open-access resource, there would be, as Mill (BK V, Ch. 11, §12, §14) realized, the free-rider problem and the conflict of individual versus collective rationality. Each settler would seek to seize as much land as possible to profit from the later rise in value from the future influx of settlers. Land was seized, not so much to be used, as to be held.

To the extent that private property in land allows the “unearned increment” or surplus to cross-subsidize the application of capital and labor to marginal land, then to that extent, private property in land condemns itself, for resources will be misallocated and aggregate rent dissipated. To hold out the discovery value of minerals as a reward for prospecting and to alienate land to the first occupier in unencumbered fee simple are actions that closer reflection show to be suboptimal precisely because the unearned increment subsidizes a misallocation of capital and labor in the same manner as an open-access resource (Gaffney 1967: 381–388).²¹

Thus advocates of land value taxation have been able to claim that, for example, “mine rents would be created by the very act of socializing them—an interesting reversal of the more usual case where taxes impose an excess burden” (Gaffney 1967: 386). The argument is that not only should a market rent be charged to avoid rent dissipation and the “tragedy of the commons” but also that it *must* be collected for the public benefit to avoid a “tragedy of privatization” as private individuals seek to profit from community-generated land values. *Not* to charge rent for scarce natural resources leads to welfare loss but allowing rent to be captured by private individuals *also* causes welfare loss (an argument that has reemerged in the literature on “rent seeking”).

Henry George first argued that Smith’s and Wakefield’s worries about the optimality of private property in land extended to old as well as new countries. George made much of land speculation: if speculation could mean that inferior new land may be prematurely used, could it not mean that existing land might be prematurely forced into a new use? Just as Smith’s land engrossers would force settlers to worse lands, so, George (1879: BK IV, Ch. 4) could argue, would land speculators force urban development of rural land near cities by locking up nearer and better sites in the hope of selling for a profit.

Thus the advocates of land value taxation have simultaneously advanced the following apparently contradictory positions:

- (1) land value taxation is neutral with respect to optimal decisions and does not interfere with Pareto-optimality by driving a wedge between price and cost;
- (2) land value taxation is super-neutral in practice because private property in land encourages the misallocation of resources (due to gambling on future land value increments) and the dissipation of aggregate rent. Land value taxation by enforcing marginal productivity pricing of labor and capital (in preventing expected unearned increments from subsidizing suboptimal allocation of capital and labor) will prevent this dissipation of economic rent.

Much of the discussion of land value taxation has been fruitless because of a failure to sort out the underlying views on speculation in natural resources. Opponents have said speculation is necessary and good; proponents have tended to say it is evil. On a closer investigation we see that the correct position of the proponents must be that:

- (a) land value taxation is neutral with respect to "optimal" speculation;
- (b) it penalizes "bad" speculation;
- (c) in practice, in spite of devices like leasing, much speculation is necessarily bad because capital and labor must be tied to the land held (Gaffney 1961: 460–462; Haig 1915b: 836–837).

If capital and labor could freely and costlessly and instantaneously move off and on land, then it would be true that "bad" speculation would never be a problem. It would be silly of an owner to refuse a land user's rental income while waiting for a value increment, if the owner could eject the tenant at will when selling (Rothbard [1970] 2009: 570–571). But this is manifestly not the case. Many investment decisions in land are not quickly reversible.

The whole problem arises from what Mason Gaffney (1961) has called the "time-indivisibility of space" and the future generations of would-be users of land who cannot enter their bids in the market now. In effect, the grant of fee-simple ownership to one generation allows

it to operate as a blocking coalition to veto the result that would have been achieved if all generations had been able to tender rental bids. The taxation of land values overcomes this breakdown in efficiency by making resources available over time to the highest yielding users. This maximizes the present value of aggregate rents.

Most taxes impede economic activity and distort choices in ways that are suboptimal. Many economists recognize that land value taxation is neutral because it does not interfere with the optimal mix of factor inputs in production. But what we have begun to examine here and will investigate more fully in Section 5.1 and Appendix 3 below is the possibility that land value taxation is super-neutral. It penalizes socially bad choices, avoids distortion of optimal choices, and even induces more efficient market outcomes than would otherwise occur. National income and welfare hence rise under such a tax.

Chapter 4

General Principles of Land Value Taxation

For it is an eternal truth, that if the tax assessed exceeds the size of the revenue [the net product], it destroys it, and undermines itself as it destroys the revenue.

Mirabeau (1760: 53)

As to the tax on the revenues of land, it is evident that it is he who possesses the land, at the moment in which the tax is established, who pays it really without being able to throw it on any one. . . . From hence it follows, that when once all the land has changed owners since the establishment of the tax, it is no longer really paid by any one.

Destutt Tracy (1817: 206–207)

Until this point, we have mostly been examining the historical arguments that influenced the modern understanding of land value taxation. We have seen that the Physiocrats and Adam Smith regarded land value taxation as optimal because it could not be shifted and caused no excess burdens. In this chapter, we will examine those arguments in greater depth.

4.1. Taxes on Land Values Cannot be Shifted

It is almost universally held that a tax on rent or upon land values cannot be shifted. However, there are some arguments, both old and new, that such a tax will be shifted. We shall now consider some of those arguments and demonstrate why they are wrong.

The arguments claiming that a tax on economic rent can be shifted may be summarized thus:

- (1) Rent is a component of all product prices; therefore, a tax on rent will be shifted to the consumer.
- (2) Even if a tax on rent cannot be shifted, a tax on land values (capitalized rent) may well be shifted because a tax on land values, in the case of appreciating land, represents a current tax outflow in excess of current rent income. Since the tax is then in excess of rent, it must drive land out of use.

- (3) A tax on rent can be shifted because the theory of tax capitalization is wrong. If a tax is levied on all property, capital values will not be affected but the rate of return will be. Changes in capital formation will then pass the burden on to consumers. This argument rests on the assimilation of land into capital in economic theory.
- (4) Even if a tax on rent in general cannot be shifted, this is not true of a tax on the rent of land in some particular uses (Simpson 1932: 219–220). In terms of opportunity cost, rent is a cost of production like any other that the consumer must ultimately pay.
- (5) A tax on rent or land values can be shifted because what is called rent is, in fact, often a reward to labor or capital. This argument flows naturally from the contention that rent is a reward for risk or foresight.
- (6) A tax on rent, like every other tax, must be a check to capital accumulation. Because it is a deterrent to thrift, it will be shifted over time, in the sense that the community's capital stock and productivity will be less.
- (7) Even if a tax on rent cannot be shifted, this applies only to permanent and indestructible qualities of land. It does not apply to exhaustible resources.

Such, then, are the arguments we shall encounter among the critics of the orthodox doctrine that a tax on rent cannot be shifted. Often enough, the criticisms are mentioned in passing by writers who do not seriously intend to press them as complete objections rather than modest qualifications, but in this discussion we must consider them carefully.

The doctrine that a tax on rent cannot be shifted is the oldest precept of political economy (E. R. A. Seligman 1921: 101–102). Its formulation began with John Locke and continued with the Physiocrats and Adam Smith, who added the allied doctrine that a tax on monopoly profits cannot be shifted. The modern formulation posits that a tax on a factor in fixed total supply will be borne by the factor. Through the whole history of economic thought, this doctrine has been a dominant and recurring theme. We see it generalized by

J. A. Hobson (1919: 24–25) and Abba Lerner (1944: 220–233) as the dictum that a tax on surplus cannot be shifted. Its influence is reflected in Hotelling's (1938: 297) endorsement of site value taxation in his famous paper on marginal cost pricing.

Locke ([1692] 1824: 56–57) argued that a tax on rent cannot be shifted, for the now familiar reason that we may assume land to be let at its competitive rent. The tenant is as little concerned by a tax on rent as he is by the way that the rent he pays is divided between superior tenants and the landholder,

it being the same thing to him, whether he pays all his rent to the king, or his landlord; or half, or a quarter, or none at all to the king . . . All this is but changing the hand that receives the rent, without any influence at all upon the yearly value of the estate; which will not be let for one penny more, or less, to the renter, however, or amongst whomsoever, the rent he pays be divided. From hence it is evident, that taxes laid on land do not in the least make rents [public plus private shares of rent] fall. (brackets added)

Locke did not, however, go on to enunciate the proposition that the tax will therefore be capitalized and cause a lower market price for land. He doubted the validity of the idea that land values are capitalized rents, since he observed that individual land values are not the same number of years' purchase of their current rents (Locke [1692] 1824: 38–40). His objections can be answered by pointing to non-monetary psychic or amenity income from land and different expectations of future rents. Apart from this difference, we may note here that Adam Smith in the *Wealth of Nations* seems to follow very closely Locke's views about the relationship between prosperity, taxes and rents.

The doctrine that a tax on rent will be capitalized is alluded to by Quesnay ([1759] 1972: 19) in his notes on *The Royal Economic Maxims of M. de Sully*, when he argued that a landholder "should not regard ordinary taxes as a charge laid on his portion, for it is not he who pays this revenue; it is the portion of the property which he has not acquired and which does not belong to him who pays it to those to whom it is due."²² We may note in passing that this manner of describing the phenomenon of tax capitalization is fully in keeping with what Max Beer (1939: 147–148, 167–170) has described as the

Physiocrats' neo-medievalism—a conception of society governed by natural law with a natural revenue to the Crown derived from its lands.

When we turn to Turgot, the twin doctrines of the non-shifting of a tax on rent and tax capitalization are clearly stated. Turgot ([1788] 1973: 179) pointed out that the purchase of land is the acquisition of a capitalized *existing* rental income rather than a capital investment that generates an income that would otherwise *not exist*. Hence, there can be no shifting of a tax on rent. Turgot ([1788] 1973: 173, 179) also noted that market values for land are derived by capitalizing rent, net of taxes or tithes. Consequently, when Turgot ([1788] 1973: 174) described the mode of calculating Physiocratic net national income, he is careful to add back the publicly-appropriated share of rent to the private share.

Adam Smith (BK II, Ch. 4, ¶17) accepted the capitalization theory of land values. Smith (BK V, Ch. 2, ¶74–75) endorsed the view that a tax on rents cannot be shifted.

A tax upon ground-rents would not raise the rents of houses. It would fall altogether upon the owner of the ground-rent, who acts always as a monopolist, and exacts the greatest rent which can be got for the use of his ground. . . . The more the inhabitant was obliged to pay for the tax, the less he would incline to pay for the ground; so that the final payment of the tax would fall altogether upon the owner of the ground-rent.

Both ground-rents and the ordinary rent of land are a species of revenue which the owner, in many cases, enjoys without any care or attention of his own. Though a part of this revenue should be taken from him in order to defray the expenses of the state, no discouragement will thereby be given to any sort of industry. The annual produce of the land and labor of the society, the real wealth and revenue of the great body of the people, might be the same after such a tax as before.

Smith (BK V, Ch. 2, ¶76) formulated the dictum that a tax on rent is neutral, though he was also aware that the provision of public goods, such as defense, could affect land values. From a practical point of view, Smith (BK V, Ch. 2, ¶47, 76) was concerned that the returns to capital sunk in the soil should not be taxed. He also suggested (BK V, Ch. 2, ¶74) that unoccupied houses not be taxed, which would, however, hardly appear to be neutral when speculation

is taken into account. Neutrality dictates the taxation of potential, rather than actual, rent.

In discussing whether taxes on different products of land can be passed back to reduce the rent of the land that produces them, Smith (BK V, Ch. 2, ¶199) was implicitly aware of a tax on rent being shifted to the consumer, if the land could be employed only in one use rather than another. To be neutral, a tax on rent must be levied on the basis of the highest and best use, regardless of the particular actual use.

The doctrine that a tax on rent cannot be shifted is given its classical formulation at the hands of Ricardo (Ch. X, ¶1–3). The tax is on infra-marginal surplus, which does not enter into price, and hence cannot be shifted. However, Ricardo (Ch. XIV, ¶6), unlike Smith, did not favor the special taxation of rents, in part because it seemed to him a violation of horizontal equity (treating equals equally). Ricardo (Ch. X, ¶2–3) also objected to the practical difficulty of assessment and the consequent danger of taxing the returns to capital sunk in the soil, but he also recognized that landlords would soon separate land rent from quasi-rent on sunk capital if such a tax were put into practice. McCulloch (1863: BK 1, Ch. 1, 42–44) pressed this objection with even greater vigor against Smith's (BK V, Ch. 2, ¶47) argument. There is, however, another objection Ricardo (Ch. XIV, ¶6) mentioned:

If it be considered that land, regarded as a fit subject for exclusive taxation, would not only be reduced in price, to compensate for the risk of that taxation, but in proportion to the indefinite nature and uncertain value of the risk would become a fit subject for speculations, partaking more of the nature of gambling than of sober trade, it will appear probable that the hands into which land would . . . be most apt to fall would be the hands . . . of the gambler than of . . . the sober-minded proprietor, who is likely to employ his land to the greatest advantage.

Ricardo implied here that a tax on rent is *not* neutral, that it will cause land to be less efficiently used. What is startling is that this argument is the opposite of what later writers tended (correctly) to assume. Later debaters, both for and against the taxation of land values, have agreed that such a tax deters land speculation by raising the holding charges paid by the speculator or other under-user of land. It is hard to disagree with Carl Shoup's (1960: 82) conclusion that Ricardo's

argument here is “forced” and that his real objection to rent taxation is based on concern for property rights.

James Mill (BK IV, Ch. 5, 248–255) shared Ricardo’s concern for established property rights but felt that this could be accommodated by only taking the unearned and unforeseen increment of rent as state revenue. He did not, however, add anything new to the basic Ricardian doctrine that a tax on rent could not be shifted.

J. B. Say (BK III, Ch. 8, §2, ¶92) accepted the non-shiftability of a rent tax and its capitalization into a lower market price for land. He also noted that the same reasoning could be applied to a tax on the quasi-rents of fixed capital, but he did not discuss this in detail. Say (BK III, Ch. 8, §4, ¶129) did, however, make another interesting comment that bears on the common saying that “a tax on rent cannot be shifted because it is a lump sum tax.” He pointed out, quite correctly, that the neutrality of a tax on rent does *not* depend on its being a fixed charge on the land. On the contrary, a fixed charge on land in Tuscany drove some land out of production because changes in market conditions led to the charge exceeding the economic rent of land (which had fallen). To be unshiftable, a tax on rent need not be a fixed charge, nor even must it be at a uniform rate on the rent of all parcels of land.²³ The tax must in no case be levied so as to exceed the economic rent of any parcel of land subject to tax.²⁴

In John Stuart Mill (BK V, Ch. 3, §2, ¶4), the taxation of land rent became a very practical issue. He accepted completely that “a tax on rent . . . has no effect, other than its obvious one. It merely takes so much from the landlord, and transfers it to the state.” When J. S. Mill (BK V, Ch. 2, §3, ¶15, §6, ¶30) discussed the capitalization doctrine, however, he discovered, like Leon Walras (see Jaffe 1975: 813) and Destutt de Tracy (1817: 206–207), that it implies that a tax on rent is borne by the owner of the land when the tax is imposed, since future purchasers of the land will buy free of the tax. For Mill, this application of the capitalization doctrine pointed to a real conundrum in distributive justice, namely, that to be fair among generations we ought neither impose new taxes on rent nor abolish existing taxes on rent.²⁵ Mill (BK V, Ch. 2, §5, ¶27–29) sought to avoid this perceived ethical problem by taxing the unearned *increment* of rents, an idea previously recommended by his father. Questions of distributive

justice will be discussed later, but we ought to note another contribution of J. S. Mill's. We noted above that Adam Smith (BK V, Ch. 2, ¶199) had seemed to suggest that a tax on rent could be passed on if it applied to the rent land could earn in one use but not another. Mill (BK V, Ch. 3, §6, ¶24), picking up the point, argued that a tax on ground-rents

will not however fall wholly on the landlord, unless with the tax on ground-rent there is combined an equivalent tax on agricultural rent. The lowest rent of land let for building is very little above the rent which the same ground would yield in agriculture . . . If, therefore a tax were laid on ground-rents without being also laid on agricultural rents, it would . . . reduce the return from the lowest ground-rents below the ordinary return from land and would check further building quite as effectually as if it were a tax on building-rents.²⁶

In this comment of Mill's, we see the germ of the idea that taxes on a factor in fixed total supply can generate excise effects, if levied on that factor in some uses but not in others. However, Mill does not consider, as H. G. Brown was to do later, how the burden of the tax will be borne by that fixed factor in both taxed and untaxed uses because of the equalization of after-tax returns.

It is important to note that this "excise effect" of a rent tax (analogous to the excise effect produced by geographically varying taxes on mobile capital) depends on the fact that a particular parcel of land is taxed in *one use* and not in *another use*. It is a misunderstanding to argue from this case of Mill's that an urban site value tax can be shifted unless adjacent rural counties also levy such a tax.²⁷ The geographical limitations of a land value tax do *not* affect its neutrality; it is only when the tax is levied in one use but not another that it can be passed on. To be unshiftable, a tax on rent must be levied on a parcel of land regardless of actual use, i.e., it cannot be contingent upon any action of the individual landholder. Ideally, land should be taxed on the basis of its potential rent in its highest and best use, but any tax on rent will be non-distorting so long as the tax does not exceed the value of a given land parcel's potential rent and regardless of whether the adjacent parcel is so taxed.

So far in this discussion I have said that a tax on rent, or upon land values, cannot be shifted. The writer who appears responsible for the

switch in economic discussion from the taxation of rent to the taxation of land values appears to be Henry George (1879: BK III, Ch. 2, ¶3), who simply noted that “[w]hen land is purchased, the payment which is made for the ownership, or right to perpetual use, is rent commuted or capitalized . . . [w]herever land having a value is used, either by owner or hirer, there is rent actual; wherever it is not used, but still has a value, there is rent potential.”

George’s suggestion that land values rather than rent be taxed did, however, represent a new development. George (1879: BK VIII, Ch. 3, ¶9) was essentially correct in asserting that “taxes levied upon the value of land cannot check production in the slightest degree, until they exceed rent, or the value of land taken annually.” This invites the question as to whether a tax on land that has a low current rent but much higher expected rents may, in fact, represent taxation in excess of *current* land rental income and therefore become a shiftable tax. The timing of tax receipts under a land value tax is, indeed, different than under a tax on rent, but we shall see later that, in fact, the inability to shift the tax still holds.

The taxation of capitalized land values rather than rent turns out to have, in fact, a definite advantage. In theory, to be unshiftable a tax on rent should be on potential rent in highest and best use. In practice, any attempt to tax rents will tend to follow current use. The *ad valorem* levy on land value avoids this problem since, as George noted, capitalized value reflects potential rent (Skouras 1977: 199; Netzer 1966: 192–195).

George realized, as did J. B. Say, that to be neutral with respect to maximizing behavior, a land value tax did not need to be a fixed charge but rather a levy unaffected by the landholder’s actions. George’s (1879: BK IX, Ch. 1, ¶10) levy would, in fact, simply follow the results of the competitive land market. The landholder’s competitors for the site would ultimately set the levy, just as one’s competitor in an auction sets the market price for an object.

Although Alfred Marshall (BK V, Ch. 10, §4, ¶17–19) basically agreed that a tax on land values could not be shifted, he gave several cases in which he thought that such a tax could be passed on. He argued correctly that to be neutral “the true rent on which the tax is levied” must be “assessed with reference to its general capabilities, and not to

the special use which the owner makes of it." However, he then proceeded to argue that "if an improved method of cultivation develops latent resources of the soil, so as to yield an increased return much in excess of what is required to remunerate the outlay with a good rate of profits; the excess of net return above normal profits belongs properly to true rent; and yet, if it is known, or even expected, that a very heavy special tax on true rent will be made to apply to this excess income, that expectation may deter the owner from making the improvement."

According to the definition of rent, if no one else can do what this land user can do, the market value of the land will be lower to that extent, and he will not be taxed on his special ability. On the other hand, if others can do as well, the land's market value will reflect that fact and the owner will be forced by the tax to use the land as well as the next best user. In short, Marshall seems in error in saying the excess is "true rent." If everyone can see the latent possibility in the soil, it will indeed be paid for as rent, but if only one person sees it, the excess return will accrue to him alone and is the reward for his intellectual and physical labor in both seeing the possibility and making it happen. In a dynamic world, many inventions or discoveries generate excess rewards that later become land rents, as everyone sees how they can be used to be more productive in a given place. For example, the first Australian farmers to use superphosphate fertilizer would have captured excess returns where they bought land from less knowledgeable neighbors.

Marshall's argument would be correct if the tax base were actual rent rather than potential rent, but land values reflect the "general capabilities" of land and not the "special uses" to which the owner may put the land. Henry George (BK IX, Ch. 1, ¶11), however, argued that a tax on potential rent forces improvement to the highest and best use implicit in the market value of the land. Archer's (1972) empirical evidence, drawing upon the experience of land value taxation in Sydney, Australia, confirms this.

Another case of a tax on land values being shifted would appear to follow from Marshall's (BK V, Ch. 10, §2, ¶8–9) example of the settler in a new country being rewarded by the increment in land values. That is the "rent as a reward for risk" argument. This argument has

been discussed before under the rubric of the rent concept and it will be discussed again, but we may note that the disposal of public lands gratis by lottery may well over-motivate settlement and cause economic loss as so many jockey for the prizes that only a few can win. If, on the other hand, the public lands were to be sold at market prices, the process of tax capitalization would mean that the settler would simply pay less for the fee simple of the land he took up. A land value tax would thus be no burden and no deterrent to the settler.

Marshall (BK V, Ch. 11, §2, ¶7–11) also wondered about supposed cases where rent could be perceived as profit on invested capital. He argued that the “unearned increment” might in fact represent an internalization of external economies created by an enterprising business that established a new factory town such as Pullman City or Saltaire. The inference is that the situation value of land is created by the investor.²⁸ Consequently, taxation of land values would deter such enterprises and the tax would be shifted.

There are several answers that can be given to this line of argument. One answer is that the location value depends on the people who come to these towns. The enhancement of value is not, in fact, the unilateral work of the business that started the town. As Steven Cord (1965: 127) has observed: “Had the corporations put up similar improvements in an isolated desert, it is doubtful that there would have been much of an increase in land values.” This objection is borne out by the casual observation that such new towns have been created near established cities. For example, Pullman City and Gary are quite close to Chicago.

One might also observe that if a plot of land is especially more valuable to the existing owner than to others (because he can use it better), the market value of land is set by the offers of others and will be less than its value to him. Hence, to that extent, his peculiar gifts for using the land better than anyone else are indeed rewarded by remaining untaxed under a land value tax, which taxes on the basis of market values. It is true that others may learn from the existing owner and bid up the land as they come to see how it can be used better but that is no reason to say that the landholder created that value for himself forever. Ideas are not property and economic liberty must

mean the freedom to imitate or copy, so long as one does not pass off one's work or product as another's.

Another pertinent question to ask is why did corporations sometimes feel they needed to establish such new towns? It seems that, in fact, Mr. Pullman did not wish his town to be obstructed by having to pay large sums to land speculators for the needed acreage. But his efforts to correct that problem created another one: "The Pullman Land Company, however, by holding its land and not disposing of it, detracted from its development as a business centre of Chicago. This center was developed elsewhere in areas where cheaper land could be obtained" (Sakolski 1957: 244).

Entrepreneurs who can see a better use for land than can others would still, under land value taxation, have an incentive to buy the land and develop it. The reason is that the profit margin generated by the ratio of land values in new versus old uses is the same whether or not there is a tax: this follows from tax capitalization. In fact, one could also argue that the lowered costs of land acquisition for redevelopment under land value taxation would enable more entrepreneurs to undertake such projects since their credit requirements would be less. Instead of buying untaxed land for \$1,000,000 to redevelop and sell for \$2,000,000, one may be buying taxed land for \$400,000 and selling for \$800,000.

Since land value taxation strongly discourages the holding of land out of use, land value taxation might eliminate the need for businesses to try to beat the land speculators at their own game and from causing the same problems.²⁹

A third objection to this "unearned increment as a reward to the investor" argument may be found in the marginalist approach to efficiency in resource allocation. Is it sensible to rely on future expected rents to subsidize capital in an enterprise earning subnormal rates of return? Does it not, perhaps, represent a social waste by dissipating rent, much in the same way as happens in a free-access resource such as a fishery? This question will be pursued further, but we may note in passing that the very next example given by Marshall (BK V, Ch. 11, §2, ¶8) may fall foul of this objection:

Somewhat similar instances are those of a group of landowners who combine to make a railway, the net traffic receipts of which are not

expected to pay any considerable interest on the capital invested in making it; but which will greatly raise the value of their land. In such cases, part of the increase of their incomes as landowners ought to be regarded as profits on capital which they have invested in the improvement of their land: though the capital has gone towards making a railway instead of being applied directly to their own property.

Let us examine Marshall's logic carefully. *Ex hypothesi*, the railway is *per se* unprofitable if financed solely from traffic receipts. The landowners who financed it are therefore losing interest on their capital as compared with what they might have got elsewhere. This loss can only be worth incurring if their land values rise by more than the capitalized value of the annual opportunity loss on the railway. But if this is so, and the railway was worth building, a complete outsider could have built the railway for them, covenanted with the landholders for a subsidy to allow him to earn the normal rate of profit on capital invested in the railway, and the landholders would be in exactly the same net position. (If the railway adds less value to the lands serviced than its cost, then it will not—and should not—be built by landholders or anyone else.) If, afterwards, a purchaser were to buy a parcel of land charged with paying a subsidy to the railway, the land's market value would be less; if the land were not so charged, the value would be more. Either way, the improving landholder is indifferent. He either transfers the subsidy liability to the purchaser or recoups his capital investment in the railway from the subsequent purchaser.

Marshall's real point seems to be that, in any taxation of the "land value," one has to treat a charge for infrastructure contributions as a capital "improvement" just like a one-off contribution by a group of landholders for draining a marsh. But, as with sunk improvements, which generally unlock the latent value of land, there is no reason to attribute to the improvement more of the increment in land value than its actual cost. Nor does one have to attribute *any* part of land value *in the long run* to such sunk improvements.

Landholders would end up wealthier if they could keep the full gross increase in land values and pass the losses of the railway on to the shoulders of the taxpayer. That seems to be emerging as the ultimate result of the American policy of fostering railroads by land

grants. Offering to build a railway may be a “loss leader” for a shrewd investor, as Sakolski (1957: 156–174) noted in his discussion of the history of these grants.

Ongoing property taxes or other levies or contributions from landholders may be necessary to maintain a railway or other infrastructure network. A policy of one-time grants or contributions may mean later generations are less well served, as the infrastructure deteriorates. Landholders have always wanted others to pay for infrastructure that benefits their land values. Interestingly, the privatization of infrastructure since the 1980s in Australia has created maintenance problems. Privatized utilities, lacking the compulsory powers of their semi-governmental predecessors to recoup contributions from landholders, face a need to withdraw marginal services, to refuse to invest, or to charge what the traffic will bear and adopt Ramsey pricing. The resulting supply shortages and quasi-taxes (prices in excess of short-run marginal cost) distort and damage a nation’s whole cost structure for internationally traded goods and services.

We have now examined the argument that a tax on land values could be shifted because the increment of land values is sometimes a necessary reward to capital. It leads us to question whether, when this occurs, we are really observing a rational and efficient allocation of resources from a social, rather than a private, point of view.

Another argument that a tax on rent could be shifted grew out of Marshall’s concept of quasi-rent. In discussing the effects of a tax on meteoric stones, freely given by nature, Marshall (BK V, Ch. 9, §3, ¶15) argues that the shiftability of a tax depends on the durability of the stones:

In the first extreme case the stones cannot be worn out or destroyed, and no more can be found. . . . A uniform tax on them . . . will fall wholly on the owner. . . . At the opposite extreme of our chain of hypotheses, the stones perish so quickly, and are so quickly reproduced at about a uniform cost . . . that [their] services can never yield much more or much less than normal *interest* on the money cost of obtaining additional stones. . . . A tax on the stones under these conditions would fall entirely on any one who . . . gave out a contract for anything in making which the stones would be used.

The inference seems to be that exhaustible resources are capital, not land, and that a tax on exhaustible resources will be shifted and hence

the theorem that a tax on rent cannot be shifted is applicable only to permanent resources. That this is wrong can be seen by noting that what Marshall said was that a tax on *all* the stones, whether nature-given or humanly-produced, will be shifted, which is true. However, land value taxation represents taxation of the nature-given stones and is *not* a tax on stones *produced by people*. Consequently, it need not be shifted, for a reason Marshall ([1890] 1961: 488) himself gave in earlier editions: "A tax on any set of things that are already produced, falls exclusively on the owners of those things, if it is not accompanied by a tax, or the expectation of a tax, on the production or bringing into use similar or rival things."

Marshall (App. G, §1, ¶2) was responsible for bringing to attention the fact that whether a tax on rent would be capitalized into lower land values or not depended on whether the proceeds of the tax were spent beneficially or not. For example, taxes spent on lighting and draining could increase the attractiveness of an area and its land values rather than depress them.

This conception of Marshall's really fits into the Lockean-Physiocratic-Smithian-Georgist line of thought that land values will gain or lose from any differential benefits or burdens on capital or labor, the mobile factors. Its significance in the context of capitalization theory is to suggest that the substitution of land value taxes for other taxes may not in fact cause land values to fall, in which case much of the argument over compensation to landowners would be unnecessary unless land value taxation were pressed so far as to drive land values toward zero. This would seem to explain why landholders in local elections in Australia and New Zealand have generated the apparent paradox of voting to impose land value taxation, an unshiftable tax, upon themselves (Cord 1965: 110, 179).

Having reviewed in chronological order the development of doctrine up to Marshall, let us now return to the arguments set out at the beginning of this chapter and section.

The first argument was that since rent is a component of product prices, a tax on it can be shifted to the consumer. This view, which has at times been erroneously attributed to the Physiocrats (Higgs 1897: 44; E. R. A. Seligman 1921: BK 2, Ch. 1, 140–141), was strongly argued by Edward Atkinson (1890a: 392; 1890b: 63–64) and T. S. Adams

(1916: 277), while Edwin Cannan (1901: 476) and F. Y. Edgeworth (1900: pt. III: 496–497; 1906: 68–71) sometimes admitted it.

The answer to this argument is that, although rent is a component of prices, it does not follow that a landholder faced with a rent tax can *freely increase* those prices. If, like John Locke, we assume a rational landowner will get the highest possible return on the land, how can any reaction to a tax yield more revenue? Since land is a given, how can such a tax raise its price by checking its production or availability? This, in short, is the classical answer and it remains valid (E. R. A. Seligman 1921: 258, 286; 1890: 35–36; S. B. Clarke 1890: 4–5; George 1887: 3–5; H. G. Brown [1924c] 1979: 216–219).³⁰

The second argument suggests that a tax on land values may be shifted, even though a tax on rent may not be. The argument suggests that the landholder may find it profitable to alter the time pattern of rental income in response to a tax on its present value, even if the land itself is indestructible. As H. J. Davenport (1917: 4) put it,

the taxation of a present worth in the absence of a present income, or any taxation disproportionate to present income, is an affront to the fundamental principle of taxation in general . . . To tax at present an income which does not exist at present, and thus to support the current state expenditures at the cost of future productive activity is a fiscal improvidence. . . . Current revenue is the only proper object of current taxation . . . *Ad valorem* taxation consistently applied amounts to almost an absolute veto on all investments promising remote returns.

The problem posed by this argument is essentially whether capital gains in land values represent income accruals and it will be examined further in Chapter 6. The answer to the argument depends on capitalization formulae, which will now be developed.

Henry George and his followers contended that a tax on land values was equivalent to a tax on rent (Post 1890: 52). The truth of this proposition may be shown thus, first using a static formula by Evans (1930: 685–686) in which the annual flow of economic rent (R) is assumed constant:

- Let i = interest rate per annum
 t = the ad valorem tax rate, levied annually
 R = economic rent
 V = present value of the untaxed rent
 V' = present value after tax is imposed

Since land values are capitalized rents, we have pre-tax: $V = \frac{R}{i}$

Post-tax, the equilibrium (market price) land value must equal capitalized net rent:

$$V' = \frac{(R - tV')}{i}$$

hence $iV' = R - tV'$

and $V' = R/(i + t)$

$$= \frac{i}{(i + t)} V \quad \text{since } V = R/i$$

This formula shows that an infinite tax rate on land values is required to drive the market (after-tax) price of taxed land to zero, i.e., to take all the economic rent. This immediately disposes of the specious objection that land value taxation is impossible because, as the tax takes the rent, it leaves no value to tax. Davenport (1910: 282–286) at first thought this a valid objection to taxing the capitalized value rather than on a rental basis. After Edgar Johnson (1910: 760–671) showed how the ad valorem tax rate could exceed 100 percent, Davenport (1917: 2–3) withdrew his objection. The simple mathematical demonstration that land value taxation does not destroy its base also responds to Rothbard's ([1957a] 1997: 298) extraordinary claim that a land value tax will raise no revenue.

The tax rate of t is equivalent to a “once for all” capitalized loss on the landholder at the time the tax is introduced, which loss is given by

$$\begin{aligned} V - V' &= V - [i/(i + t)]V \\ &= [t/(i + t)]V \end{aligned}$$

Thus, the state asserts itself as a co-proprietor of the land: the public share of the rent is $t/(i + t)$ and the private share is $i/(i + t)$. The static formula for tax capitalization is well established and shows that future purchasers buy free of the tax. However, what happens when R is no longer constant?

The dynamic case, found in the endnote, also shows that increases in rent (R) do not invalidate the argument.³¹ As in the static case, the ad valorem tax rate, t , must rise to infinity to drive the market value of land to zero. Hence, the land value tax cannot drive land out of use,

since its continued market value is a sure sign that it is worth having. Davenport's argument, as Edgar Johnson (1910: 760–761) noted, essentially depends on refusing to take account of accruing capital gains to the landowner. The only essential difference between a tax on rent and a tax on land values is that a different time pattern of tax payments occurs. When rents are rising, a land value tax will take a higher percentage of cash rent than a rent tax that takes an equal percentage of the present value of the land, and *vice versa*.

The argument that a tax on rent is borne by the consumer because a general tax on property affects the rate of interest and not capital values is due to T. S. Adams (1916). It is extremely important to analyze Adams's argument because it was partly revived in the 1970s under the guise of the "new view" of the property tax and has been used by Mieszkowski (1970: 6, 15, 17–18) and Schaaf (1970: 33–35) to assert that land value taxation is not neutral with respect to optimal resource allocation because it is not a uniform tax on all investment assets.

Adams's (1916: 271–287) argument that taxes on land values are shifted to consumers proceeds thus:

- (1) Land and all other investment assets compete in investors' portfolios.
- (2) This competition ensures that after-tax returns on all assets will be equalized (Adams 1916: 273).
- (3) Therefore, any special tax on one kind of investment asset will have two effects:
 - (a) The required pre-tax rate of return on that asset will rise, creating an excise effect for consumers of goods produced with that asset (Adams 1916: 277).
 - (b) As funds flow out of that taxed investment asset, they will drive down the after-tax rate of return elsewhere, so that the after-tax rate of return will be reduced generally. All investors will, therefore, bear the average burden of taxation in a reduced after-tax rate of return (Adams 1916: 278).
- (4) Applying this argument to taxes on land values, such a tax may well not be capitalized in a once-and-for-all loss by the current landholder. Instead, the tax will be borne by consumers and investors, including subsequent holders of the taxed land.

This argument against the traditional theory of the capitalization of land value taxes can be severely attacked on several counts:

- (1) Even on its own terms, the argument does not deny partial tax capitalization, since “unless the demand for the funds which flow from land to the other investments is perfectly inelastic the interest rate will not fall sufficiently to maintain or restore the original land values” (Ellickson 1966: 171). The usual result would be partial capitalization and a somewhat lower after-tax rate of return.
- (2) How are after-tax returns equalized anyway? Adams suggested this was because funds flowed out of land, for example, into other assets. E. R. A. Seligman objected that, on the contrary, equalization of after-tax returns occurs precisely through capitalization. Capitalization occurs instantaneously once the tax is announced. According to Seligman (1916: 802): “Capitalization is equalization; equalization is capitalization.” However, Seligman (1916: 792–792; 1921: 129, 222) argued that a general tax on property would not lead to capitalization, though an exclusive or excess tax on land values would.
- (3) The most devastating critique of Adams came from Davenport, Hayes, and H. G. Brown. Davenport (1917: 26–28) objected that Adams was implicitly talking about the imposition of two taxes simultaneously—a tax on existing assets and a tax on new investments. If the tax were levied on existing assets and not on new investments it would be capitalized, since the rate of return is not determined by existing assets but by the return to new investments. (Marshall and Wicksell shared Davenport’s view.)

Hayes (1920: 378–379) and Brown ([1924c] 1979: 250–254) went further. They pointed out that E. R. A. Seligman was wrong in claiming that capitalization depended on a tax being exclusive or excessive. They noted that taxes on existing capital goods would not be capitalized, if accompanied by a like tax on new capital goods. The value of the old must equal the value of the new, which would be higher due to the increased cost of production caused by the tax. In contrast, the rent of land was

not alterable by supply responses (Brown [1924c] 1979: 254). Moreover, if a general tax on property should decrease saving, the net rate of return might not be altered, so that capitalization of a land value tax would still occur even if it were part of a general tax.

The essential problem inherent in Adams's argument and the "new view" of the property tax as applied to land is that implicitly the following assumptions are being made:

- (a) Land is capital.
- (b) Capital is in fixed total supply.
- (c) The distinction between existing and new assets does not exist, since capital is a John Bates Clark-style "jelly" that can flow from one form to another.
- (d) The rate of interest is determined by the ratio of the quasi-rents earned by this "jelly" to its value.
- (e) A tax on rents and quasi-rents is therefore a tax on interest.

Ultimately, therefore, the doctrine that a tax on land values will be capitalized must be accepted unless one is willing to accept these implicit assumptions. I see no reason to accept them and have set out previously my reasons for rejecting the view that land is capital. In essence, there is a difference between purchasing a capitalized right to an *existing* income and investing to create an income (Turgot [1788] 1973: 179).

A more interesting argument over the shiftability of land value taxes is raised by the suggestion that a tax on land values in one use but not another will be shifted to consumers.

We have seen that Adam Smith and John Stuart Mill were aware of the possibility and did, in fact, agree that a tax on the rent of land in some uses but not others could generate an "excise effect." The consumer would pay more for what was produced by land in the taxed use (D. H. Buchanan 1929: 133–134, 145–147).

It was the singular merit of Harry Gunnison Brown to have perceived that while the above is true, it is not the end of the story. Brown ([1924c] 1979: 213–215) noted that if land for growing corn were taxed, but land for growing wheat were not, the transfer of land

from corn growing to wheat growing would reduce corn production and raise both the price of corn and the rent from corn-land, while the price of wheat would fall, as would the rent on wheat-land. Thus, Brown ([1924c] 1979: 215) concluded that

the tax on land used in some way or ways becomes shifted to or spread among the owners of land used in all ways. It is not shifted upon consumers. For while the goods indirectly discriminated against are raised in price by the tax, other goods tend to be lowered. Consumers of the former goods may lose. But consumers of other goods may gain. If these consumers are of the same class or are the same persons, the result may be regarded as cancelling. But landowners, as such, must and will receive somewhat lower net rents. After minor qualifications are made, it remains true that the main burden of the tax is upon the landowners.

One presumes that a qualification of this statement would be the observation that, in contrast to a land value tax independent of use, taxes on land in specific uses would generate an excess burden through misallocation of land and that this burden could be partly reflected in a lower marginal value product of labor and capital.

It is interesting to note that analogous reasoning was applied by Brown ([1924c] 1979: 178–184) to taxes on capital in some industries and not others. The burden would be borne by capital in general. This is the line of reasoning now familiar in Harberger-type models of partial capital taxes. In effect, such models assume fixed total supplies of labor and capital (Mieszkowski 1970: 19, 27; McLure 1970: 118, 124, 131). In these models, capital and labor earn rents, rather than interest or wages.

Brown ([1924c] 1979: 184–192) himself, we may note, was much more cautious about the actual validity in the real world of the assumption that capital is in fixed total supply and, to that extent, regarded this reasoning as more valid for land taxation than capital taxation. (Friedlaender 1974: 232–233) was also “uneasy about accepting the Mieszkowski-Harberger analysis.”

Another class of arguments that a tax on land values can be shifted logically flows from the thesis that the “unearned increment” is really earned by labor and capital. This is the “rent is a reward for risk” argument we have seen before.

Alfred Marshall and J. B. Clark first suggested that rent could be a reward to the settler for his low pioneering wages. However, it was

pressed vigorously by A. S. Johnson, T. S. Adams, and C. C. Plehn. Johnson ([1914] 1917: 131) proposed that people “establish themselves in unsettled regions long before general economic conditions afford them a return commensurate with their toil and privations [T]he ‘unearned increment’ consists of the wages of pioneering together with interest on capital sunk in the price of the soil.” For Plehn (1918: 495), “[t]he so-called unearned increment so far as it can be anticipated is a part of the normal return to workers on and investors in land.” As Adams (1916: 279–280) put it, the unearned increment is “diffused” as a benefit to the consumer in a lower cost of production because receipt of the unearned increment allows capital and labor on appreciating land to take subnormal rewards.

If this argument is correct then it obviously follows that a land value tax can and will be shifted to the consumer in higher prices because, as Turner (1917: 350) concluded, land value taxation will deter such activities.

The answers to this line of argument are fairly obvious. It may be objected in rebuttal that if rent is a reward to capital and labor, is there any return to land? If there is not, then is land a free good? Are there no scarce or valuable sites? If there is a return to land how can it double as a return to labor or capital? Is it not more correct to say that rents in these cases are being spent on subsidizing capital and labor? But if this is what the diffusion of the unearned increment amounts to, E. R. A. Seligman (1916: 805) asks: “Ought we not to consider carefully the social loss of misdirected labor and capital; and ought this not to count on the other side of the balance?” Since both Adams (1916: 281–282) and Johnson ([1914] 1917: 131) admitted that those who labored to gain the unearned increment lacked shrewd business judgment, the question is well taken. If an unforeseen, unknowable, unearned increment is what Adams and Johnson had in mind, their argument seems to imply that the greater the pioneers’ errors of foresight the greater will be the national gain (Turner 1917: 351).

If, on the contrary, the unearned increment is anticipated, then the pioneer will have to pay for it in a higher capitalized present value of land (Ellickson 1966: 97). The unearned increment will not spur him on, nor, as we noted above, will a land value tax deter him.

In short, the “lure of the unearned increment” argument *against* land value taxation can be stood on its head. It can be turned into an argument *for* land value taxation, as a corrective for the misallocation of resources resulting from premature settlement and development.

Another argument that land value taxes can be shifted is attributable to Ricardo and J. B. Say (E. R. A. Seligman 1921: 258, 286). They argued that all taxes were evil because they discouraged capital formation by the private sector out of the income lost to government.

As H. G. Brown ([1924c] 1979: 263) pointed out, this hardly represents an argument that land value taxes can be thus indirectly shifted since “on this hypothesis every tax must diminish accumulation.” Moreover, the existence of government and the security it provides may result in more capital formation than in a state of anarchy. The real point, however, as Brown ([1924c] 1979: 265) observed, is that “some taxes do not at all discourage accumulation except in the sense that the individual cannot accumulate what the state takes from him and that other taxes may affect adversely the *motive* to accumulate.”

As we shall see later, work by Nichols (1970), Skouras (1977), and Feldstein (1977) has suggested that land value taxation might not deter capital formation in this sense but may rather, in fact, encourage it by forcing individuals to satisfy their savings requirements by substituting real physical capital for land in their portfolios.

This survey of the doctrine of the non-shiftability of a land value tax has, I suggest, shown that either the objections to it are mistaken or that they raise questions about the objections themselves. Subsequent sections will therefore take up in detail the questions of land value taxation in relation to timing of land uses, location and land settlement, the competitive allocation of resources, and the discovery and depletion of natural resources. However, before returning to these topics, let us return to examine the history of a Physiocratic doctrine that has fared less well in the textbooks: the idea that “all taxes fall upon land.”

4.2. All Taxes Indirectly Fall on Land Values

The prevailing opinion today regarding the doctrine of the Physiocrats that all taxes fall upon land would probably not much differ from the judgment of J. B. Say (BK III, Ch. 8, §2, ¶93, n.103): “The economists

were quite correct in their position, that a land or territorial tax falls wholly on the net product, and consequently, upon the proprietors, but they were wrong in extending the doctrine so far as to assert, that all other taxes were defrayed out of the same fund.”

I shall endeavor to show that perhaps a kinder judgment is in order: that if the Physiocrats were not entirely correct they were by no means entirely wrong either, and that their attempt to trace the shifting of taxes to surplus and the identification of that surplus as land rent still has practical significance.

One question presents itself in regard to Say's judgment: If all taxes were “defrayed” from rent anyway, why were the Physiocrats so emphatic about the desirability of their “*impôt unique*”? The answer is obvious from the previous discussion of classical approaches to tax incidence theory—the Physiocratic belief was that other taxes not only were defrayed out of rent *but also diminished it*. This will become clear in a review of the historical development of the argument that all taxes fall upon land.

The first notable proponent of this idea was John Locke (E. R. A. Seligman 1921: BK I, Ch. 5, 101–103). Locke's ([1692] 1824: 54–55) argument started with the suggestion that “[w]hen a nation is running to decay and ruin, the merchant and monied man, do what you can, will be sure to starve last: observe it where you will, the decays that come upon, and bring to ruin any country, do constantly first fall upon the land.” Locke ([1692] 1824: 55–56) concluded this because capital could emigrate or be held in sterile hoards, but landlords could not escape taxation:

This by the way, if well considered, might let us see that taxes, however contrived, and out of whose hands soever immediately taken, do, in a country, where their great fund is in land, for the most part terminate upon land. . . . Perhaps it will be found that those taxes which seem least to affect land, will most surely of all other fall the rents [i.e., cause rents to fall]. . . . A tax laid upon land seems hard to the landholder, because it is so much money going visibly out of his pocket: and therefore, as an ease to himself, the landholder is always forward to lay it upon commodities. But, if he will thoroughly consider it, and examine the effects, he will find he buys this seeming ease at a very dear rate: and, though he pays not this tax immediately out of his own purse, yet his purse will find it by a greater want of money there. (Bracketed comments added.)

How will a commodity tax cause rents to fall? Locke ([1692] 1824: 57–58) argues that merchants will simply raise the price of their goods, causing the laborers to demand more wages to maintain their subsistence, so the farmers, to compensate for their higher wage bills, must reduce the rent they pay. The farmers cannot recoup these costs by increased prices because the excise has lowered the net price they, the producers, receive, while simultaneously raising the gross price to the consumer with the foregoing effects.

Locke's ([1692] 1824: 60–61) conclusion is that the tax will ultimately fall on landowners (the gentry) because

the gentry will, but the worst way, increase their own charges, that is, by lessening the yearly value of their estates, if they hope to ease their land, by charging commodities. It is vain, in a country whose great fund is land, to hope to lay the public charge of the government on any thing else; there it will terminate. The merchant (do what you can) will not bear it, the laborer cannot, and therefore the landholder must . . . A country may thrive, the country gentlemen grow rich, and his rents increase . . . whilst the land is taxed: but I challenge any one to show me a country, wherein there is any considerable public charge raised, where the land does not most sensibly feel it, and, in proportion, bear much the greater part of it.

Drawing upon the preceding statements, we can summarize Locke's ([1692] 1824: 60–61, 56–57) views as follows:

- (1) He does not deny that others can be made eventually to bear some tax burdens, but he does assert this cannot be done without causing rents to fall.
- (2) In contrast, a direct tax on rent in no way causes rents to fall. The sum of the publicly and privately appropriated shares remains the same.
- (3) He has assumed that labor earns a subsistence wage and capital is mobile and very elastic. There seems to be little producers' surplus to capital or labor that taxation could appropriate.

Locke's views were widely cited in the 18th-century English debates over Walpole's excise scheme (E. R. A. Seligman 1921: 106–108). Landholders, such as Sir William Wyndham, argued that rents would suffer less from being directly taxed than from attempts to place the burdens on labor, industry and trade (Orr 1912: 1–6). It was, however, at the hands of the Physiocrats, who were probably familiar with

Locke's analysis, that his arguments received much fuller treatment (Higgs 1897: 15, 29, 46, 134; E. R. A. Seligman 1921: 126–142).

The essence of the Physiocratic argument is that a tax on costs of production must be shifted to net revenue or surplus. Since all labor and capital costs are costs of production, the only surplus is, in fact, agricultural rent (Turgot [1767a] 1977: 114, n. 8). Therefore all taxes must fall upon it (Turgot [1763] 1977: 98).

It is certainly not, however, a matter of indifference whether rent is taxed directly or indirectly by this sort of shifting. Taxes on labor and capital will diminish their supply, reducing not only the very factor incomes they seek to tax but also reducing land rent, the only true net revenue available to be taken (Quesnay [1759] 1972: 1–5; Turgot [1763] 1977: 100–105; E. R. A. Seligman 1921: 126–142). For how can rent arise, without the application of capital and labor to land?

It might seem that the Physiocratic argument depends on the assumption that labor and capital are in infinitely elastic supply at certain natural wage rates and interest rates, which in turn are determined by a subsistence theory of wages and international mobility of capital (Turgot, in Rotwein 1970: 210–212; Turgot [1788] 1973: 122). Obviously, in this case, any attempt to tax labor and capital would lead to their total disappearance from the national economy and there would be no wages, no profits, no rent, and no tax revenue. If this is so, then the Physiocrats “proved” their conclusion that all taxes reduce land rent by the simple expedient of assuming away any producers’ surplus to capital and labor.

In fact, however, the Physiocrats did not assume there were no producers’ surpluses enjoyed by capital and labor (Turgot [1788] 1973: 146, 181). All they assumed, and all they needed to assume, was that the supply of labor and capital was elastic with respect to their returns. It is true that a subsistence theory of wages was advanced. However, they also recognized the mobility (emigration) of labor and capital, since population size was clearly related to economic conditions (Quesnay [1759] 1972: 13n.; Higgs 1897: 5–1). Moreover, they did not neglect the obvious fact that higher wages might induce more work effort (Turgot [1767b] 1977: 126–127). (We can contrast that with the perversely downward-sloping supply curve of labor implicit in Arthur Young’s remark (quoted in Thomas 1964: 222) that “[e]veryone but an

idiot knows that the lower classes must be kept poor or they will never be industrious.") Obviously, the more elastic in supply labor and capital were, the more serious would be the impact of the withdrawal of labor and capital upon rent.

Were then the Physiocrats perfectly correct in the contention that, as Say put it, all taxes were "defrayed" out of the rent fund?

In an obvious sense, they were clearly wrong, *if* it is thought that they meant to argue that the net returns to labor and capital would be unaffected by taxation and that labor and capital could *without loss* throw the *entire* burden onto the landowners. Unless perfectly elastic in supply, labor and capital must suffer a reduction in net returns, since there is in that case some producers' surplus that can be tapped even if some of it is partially destroyed by the effects of taxation on marginal factor supply.

However, this is not what the Physiocrats were trying to say. If, for example, they believed that wages were fixed by a subsistence standard, it would have been illogical for them to be so concerned about the impoverishment of the peasantry. The real point of the Physiocratic argument seems to be as follows:

- (1) There are three factors of production: land, labor, and capital.
- (2) The supply of labor and capital is dependent upon their earnings and therefore upon taxation of those earnings.
- (3) The rent of land depends on the amount of capital and labor expended on it.
- (4) Hence, taxation of labor and capital
 - (a) may reduce their net earnings,
 - (b) which will, in turn, reduce the supply of labor and capital; and, thus
 - (c) reduce the rent of land.

In contrast, a tax on rent will only reduce the privately appropriated share of rent and in no way reduce either the gross rent itself or the revenues received by labor and capital.

There is nothing wrong in theory with this Physiocratic argument. It is valid as long as one does not, as E. R. A. Seligman (1921: 141) did, accept the common interpretation that the Physiocratic doctrine of incidence rests "on the sole productivity of agriculture." In practice,

the damaging effects attributable to taxation of labor and capital depend on their long-run elasticities of supply, which the Physiocrats thought were considerable.

When we turn to Adam Smith, we discover, as several writers have noticed before, that his theory of incidence implies acceptance of the doctrine that all other taxes will reduce the rent of land: William Spence in 1808 (Higgs 1897: 138); E. R. A. Seligman (1921: 142); Lynn (1976: 374–375). Smith basically accepted the Physiocratic notion that a tax upon costs will be shifted so as to reduce surplus and that, conversely, a tax on surplus would not be shifted. He also agreed that the process of shifting would be destructive. His only real difference was that Smith thought rent was not the only surplus available for taxation, even if it was the only true producers' surplus (E. R. A. Seligman 1921: 146).

We have seen that Ricardo objected to Smith's acceptance of much of the Physiocratic doctrine that all taxes fall on rent and argued instead that taxes would fall on profits or wealthy consumers. However, Senior and J. S. Mill were able to argue against this Ricardian conclusion within the terms of the model itself. They pointed out that taxes on profits would lead to an earlier arrival at the stationary state with lower population and lower rents.

Parallel with the type of reasoning that all burdens on labor and capital would cause rent to fall went another line of reasoning about the converse proposition that economic progress and all boons to labor and capital would cause rents to rise. We have seen this view expressed by Adam Smith and Ricardo (Ch. XXIV, 334–336). The argument is that all local subsidies, public goods, or favorable externalities will be captured by land rents in the favored area, since capital and labor there are subject to competition from less favored capital and labor (Marshall: App. G, §1–5). Harriss (1973) elaborates on this theme by giving interesting examples of the capitalization of subsidies into increased land values.

This argument need not be interpreted to mean that rent is the *only* beneficiary from such things, any more than the argument that all taxes on labor and capital depress rent must be taken as meaning that capital and labor suffer no loss thereby. All that both arguments require is that labor and capital are sensitive to their rates of return in

a particular locality or nation and that the productivity of land increases with the capital and labor employed upon it.

Returning to the argument that all taxes fall on rent, in modern times it has been reformulated by writers such as H. G. Brown ([1924c] 1979: 192–194) in his discussion of the effects of a general tax on capital.³²

In proportion, however, as a tax on capital, by diminishing the net income of capital, discourages capital accumulation, the owners of capital shift the burden upon other classes. . . . The marginal productivity of capital and hence the interest on capital (including the part collected as tax) rises relatively to the marginal productivity of labor and wages and relatively to the marginal productivity of land and economic rent. The tax then tends to be shifted, to some extent, upon workers and landowners. If the bearing of a part of this burden by workers, in the form of lower real wages . . . tends to reduce population and so make the supply of labor smaller, real wages tend upward and the tax falls in relatively larger proportion upon the owners of land. The demand for land is reduced. . . . On the assumptions here made as to the effect of taxing capital on capital accumulation and as to the effect of a burden on wages upon population, we should arrive at something like the Physiocratic doctrine that all taxes must finally fall upon the owners of land, in the form of diminished rent. But we should need to include among landowners the owners of urban and other non-agricultural land, whose status the Physiocratic theory seems to have overlooked. And, also, we should need to distinguish between such indirect taxation of land . . . taking all their rent from the owners of near-marginal land while only taking a small proportion of their rent from the owners of superior land, and a direct tax upon land rent, which would take the same percent.

It is, of course, now commonly accepted that in an open economy from which capital and labor can migrate we can regard the wage rate and interest rate as exogenously fixed so that any tax on capital and labor must necessarily lead to emigration of these factors till after-tax rewards are restored. Ignoring any depressing effect the migration of capital and labor may have on their rewards elsewhere, it is quite clear that the effect in the taxing jurisdiction will be a fall in rents. This does not necessarily mean, however, a fall in the relative share of rent in output, since output, capital stock, and labor force will have all fallen. Landowners could therefore gain *relatively*, even if suffering an absolute reduction in rents.

In a closed economy, in response to a sales or income tax, capital can “emigrate,” as Brown noted, by dissaving; labor can “emigrate” by

lower population, lower work effort, or the choice of leisure and untaxed household production. In this case, however, net (after-tax) wage rates and interest rates are endogenous. Thus, we would expect them to fall, which would lead to a corresponding fall in the supply of capital and labor. In this sense, we can say that capital and labor can be made to bear the burden of taxation. However, as Brown observed, even in this case the marginal productivity of the fixed factor (land) must fall so that we are back with the result that taxes on capital and labor must cause rents to fall.

It is, therefore, correct to argue, as Locke and the Physiocrats did, that taxes on capital and labor will cause rents to fall, in contrast to a direct tax on rents, which would only alter the division of rents between owner and government. It is not, however, correct to argue (if anyone ever did) that capital and labor cannot be made to suffer a fall in net returns as a result of taxation and that a fall in rents is the *only* result of such taxation.

So far I have implicitly confined this discussion of Physiocratic tax doctrine to a three-factor model of land, labor, and capital under the classical assumptions that land is physically fixed in supply whereas the other two factors are not. There were, however, some writers who suggested that a more micro approach to tax incidence theory should be adopted in which rent is not the only surplus. This approach characterizes the views of E. R. A. Seligman (1921: 393–394), Hobson (1919: 65), and Lerner (1952: 230) and is closely allied to modern attempts to generalize the rent concept.³³

The basic propositions common to these authors are that:

- (1) A tax on surplus cannot be shifted.
- (2) All other taxes, which are taxes upon costs of production, will be shifted till they fall ultimately upon surplus.
- (3) However, the process of shifting may well involve the destruction of some surplus.

These propositions clearly parallel those of the Physiocrats. The obvious questions they raise are whether there are other producers' surpluses than land rent, and, if so, are they capable of being isolated for the purposes of taxation?

There have been several suggestions of other surpluses:

- (1) *Wages above subsistence levels*. This idea goes back to Ricardo and J. S. Mill. The obvious objections are that different jobs have different disutilities, and different incomes are therefore necessary to elicit workers for harder jobs. Moreover, labor has the choices of leisure or emigration (such as “brain drains” that have siphoned off talent from one country and transferred it to a richer one). Again, if “subsistence” is a social concept, labor may choose not to reproduce, in order to keep accustomed living standards or reach desired levels (Ricardo 1821: Ch. 5, 96–97).
- (2) *Quasi-rents* (Hobson 1919: 32). The Marshallian objection to taxation of these is obvious. A tax might not affect factor supplies in the short run, but in the long run, a tax on quasi-rents would have a deleterious effect on productivity.
- (3) *Monopolistic advantages* (Groves 1974: 136–137). It was recognized, early and correctly, by Adam Smith that the profits of monopoly were uniquely suitable for taxation but surely the first best solution is to abolish artificial monopolies and to tax, if one wishes, the natural monopoly—land. George (1879: BK VIII, Ch. 3, ¶8–9) discussed several monopolies of his day, concluding: “But all other monopolies are trivial in extent as compared with the monopoly of land.”
- (4) *Pure profits, disequilibrium surpluses, and speculative gains, other than land value increments*. The objection to regarding these as surpluses is that they are self-eliminating. In fact, they serve the very useful purpose of guiding the allocation of resources towards equilibrium. To tax them is, therefore, to reduce the incentive for economic adjustment. Land value taxation, by contrast, would tax gains in land values as they accrue and thus avoid the distortions in the first place.
- (5) *Special and rare talents* (opera singers, baseball stars, doctors, lawyers). The objection to calling these surplus incomes is that, to the extent they are due to barriers to competition, those barriers were better eliminated. In any case, as Smith (BK I, Ch. 10b, ¶19–25) observed, such occupations exhibit uncertain

prospects of success. Specialized occupations also demand much practice and human capital investment in training and substantial risks from injury (in sports) or loss of voice (in opera) (Ellickson 1966: 197–199). Finally, new talents are always being born to compete with established celebrities; new land, however, is not being created daily.

- (6) *Bequests and gifts* (E. R. A. Seligman 1921: 393). J. S. Mill may have originated the view that these are surpluses (Groves 1974: 125). However, these are surpluses only from the point of view of the recipient, not from the point of view of the donor. Taxes on bequests could deter capital formation aimed at providing such bequests.
- (7) Finally, even homogeneous capital and labor in a three-factor model could generate aggregate producers' surpluses. But can such surpluses be isolated for taxation? The problem arises from the fact that we cannot speak of the "marginal product of the 39th man" but rather must speak of the "marginal product of 39 men." Every unit of capital or labor when it is homogeneous is equally marginal. We cannot isolate "a surplus earned by a *particular* part of a factor of production over and above the minimum earnings necessary to do its work" (Robinson [1933] 1954: 102, emphasis added). Collier (1975: 213–215) also raises this point in criticizing the Paretian (all factors) concept of rent. In contrast, the rent of particular units of land can be isolated for taxation. Consequently, attempts to tax surplus components of interest and wages would seem to be impossible. Hobson and Lerner could only suggest progressive income taxes. Adam Smith's suggestion of taxing luxuries may have as much practical merit.

In summary, there seem to be good reasons for thinking that surpluses other than land rent are either not surpluses at all or are not capable of being isolated for purposes of taxation (Ellickson 1966: 127–128, 195; Groves 1974: 130, 138). Consequently, the modern proposition that all taxes fall on surplus does not seem for practical purposes much of an advance on the arguments of Locke and the Physiocrats.

The general conclusion of the history of doctrine in this area would seem to be:

- (1) All taxes on factors in variable supply will lead to lower returns for factors in fixed supply. This will occur through excise effects, which reduce surplus, by rendering some activities submarginal.
- (2) If the factors in variable supply are not infinitely elastic, they too will suffer from an inefficient indirect taxation of their aggregate surplus.
- (3) In contrast, taxes levied directly on surplus will not reduce its amount but simply alter its division between individuals and the state.
- (4) In practice, the only fixed factor in the long run is land, and the only surplus that can be clearly isolated is land rent. It would therefore seem to be a practical proposition to assert that taxes on labor and capital do, in fact, cause land rents and values to fall.

Consequently, the reduction of taxes on capital and labor may induce a rise in land values, which may offset the fall in the price of land that resulted from the capitalization of the tax on land values (Gaffney 1970: 188–192). Such an expectation was Quesnay's reason for thinking landowners foolish in opposing the *impôt unique* (single tax) (E. R. A. Seligman 1921: 131). The strength of any such compensating rise in land values obviously depends on the elasticity of supply of capital and labor. Lerner (1952: 235–237) doubted whether these elasticities were very great. The Physiocrats obviously thought otherwise, as did Henry George, who was ridiculed for "his claim that the application of the single tax would increase land values" (Edgar Johnson 1910: 759–760).

By now, the practical relevance should be obvious of the argument that taxes on labor and capital also reduce land rents. One argument against land value taxation has been that landholders are entitled to compensation. That question can be pursued elsewhere and refuted on its own premises but we can now see that there is a possibility there will be no loss to landholders anyway, so long as land value taxation is in lieu of other taxes. Dodd (1904: 49), Orr (1912: 3), and other writers have noted that the introduction of land value taxes in Australia and New Zealand did not necessarily lower market land

values. Just as the capitalization doctrine furnishes one argument that land value taxation *ultimately* imposes zero burden, so the doctrine that all taxes reduce rent furnishes another argument that land value taxation *immediately* imposes zero burden *when substituted for other taxes* (E. R. A. Seligman 1921: 133, 137, 219–225; Fillebrown 1917: 138–149). (Morton (1955: 106–109) disagrees, offering a “burden of debt” type argument.) A gradual transition to land value taxation could, by creating a higher, even if terminable, stream of rents, largely compensate landowners for the loss of a perpetual stream of rents depressed by alternative taxes.

4.3. Can Land be Assessed at “Highest and Best Use?”

A tax upon land value, assessed upon the most remunerative use to which the particular land could be applied, would itself be a strong incentive to compel the owner to put it to this use, for otherwise his residue of rent after he had paid the tax might be nil. Such a tax, therefore, instead of impairing the taxpayer’s incentive to apply effectively his factor of production, would actually stimulate such application.

J.A. Hobson (1919: 29)

Advocates of land value taxation have consistently claimed that economic efficiency would be improved by forcing landholders to make their land available for its highest and best use. This claim was perhaps first made by Henry George (1879: BK IX, Ch. 1, ¶11):

Everywhere that land had attained a value, taxation, instead of operating, as now, as a fine upon improvement, would operate to *force* improvement . . . The owner of a vacant city lot would have to pay as much for the privilege of keeping other people off of it until he wanted to use it, as his neighbor who has a fine house upon his lot. (emphasis added)

Nor was this argument confined to unused land; it was also applied to underused or misused land. James R. Carret (1890: 110), a Boston land conveyancer, observed:

The effect of the single tax would be to compel owners of land to use it to the best advantage, or to abandon it to someone else who would so use it. In cities, owners of valuable land occupied by old and unsuitable buildings would find it necessary to remove them and supply their place with better.

This claim presumes that land can be valued for the purposes of its highest and best use. Not surprisingly, some writers have argued this to be impossible: Professor William Smart (1900: 71) confessed himself “unable to conceive where such a valuation would lead us” even though he was willing to agree as to the evident fact that “in every city which has grown, there are buildings which do not ‘fully utilize’ their sites.” His conclusion was that any such valuations would be hopelessly subjective guesses by the assessor (Smart 1900: 76–77).

The answer to the valuation objection is that the assessor does not operate *in vacuo*. The object of assessment is to follow the market, not to replace it with administrative fiat. Nor is it theoretically or practically necessary that the valuer attempt to assess land in its condition, say, in Roman times. The “public value” of land includes all increases in value due to the actions of others than the landholder or his predecessor in title and it also includes the value of latent qualities in the land (Pigou 1947: Ch. XIV, 149–151). The object of valuation is to seek the market value of unimproved land. Only assessments made on this principle are neutral with respect to the highest and best use of land. The assessments are then fixed ultimately by an authority not subject to the landholder’s actions—the market. The value should not be lowered if the owner is under-using the land. The valuation should also not be raised in consequence of improvements by the owner. Neither current use assessment nor improved property taxation are neutral. William Smart (1900: 93) proposed putting the taxation of vacant (unused) land in a separate class from under-used land and suggested taxation of the former on capitalized value and taxation of the latter on current use. This would not have been neutral.

On the practical level, the feasibility of assessing or valuing unimproved land and its greater simplicity, compared to assessment of improved property, has been demonstrated for decades in Australia and New Zealand. (Woodruff and Ecker-Racz 1969: 180–81). Professor Smart’s objection to appraising site values independent of buildings was out of date at the time he wrote it.

A somewhat more surprising objection to Henry George’s claim that land value taxation would force improvement was the claim put forward by Professors William Baumol and Lester Chandler (quoted in E. R. Brown 1961: 148–149) that “[a] land tax of sufficient magnitude

may induce landlords to let their acres grow wild or use them as hunting grounds." No argument is given in support of this objection and it appears that it is based on the misconception that unused or owner-occupied land would not be subject to land value taxation. If that were the case, then the argument would be better made against the British property tax ("rates"), under which unoccupied premises are not assessed or taxed ("rated").

Adam Smith (BK V, Ch. 2, ¶74) unfortunately favored the exemption of unoccupied houses from taxation. The consequence of this exemption was most convincingly demonstrated when Harry Hyams, a London real estate developer, left Center Point, a 35-story high-end office building, vacant from 1965 to 1974. Signing rents were rising, so the value of the building with vacant possession was rising. However, because the building was not occupied, property taxes (rates) did not figure as a carrying cost, and the capital gain on the sale of the building was tax free. Scott (1996: 195) gives an account of the controversy this generated.

Despite Smith's views, the proposition that land value taxation forces optimal land use has been defended. As Richman (1964: 260) puts it:

No proposition in economics is more universally accepted than that a tax on land discourages the holding of land in idleness. The tax encourages efficient land utilization by adding to the gains foregone by failure to exploit land productively, the penalty of a tax which must be paid regardless of the use which the owner may choose to make of it.

Richman (1964: 263) goes on to point out that a shift from improved property taxation to land value taxation lowers the burden on optimally improved property and raises it on vacant land or land with obsolete structures.

Mason Gaffney (1964: 279–280) has demonstrated the neutrality of land value taxation with respect to the optimal time for demolition and rebuilding on a site. A site is ready for renewal when the existing structure ceases to earn a return on the value of the site in its highest alternative use. Beyond that, the building even detracts from the value of the parcel (Marshall: Appdx G, §2, ¶8). Gaffney demonstrates the neutrality mathematically, but it can be realized intuitively by remembering that land value assessments are derived from the market price

of demolition sites and the extrapolation of these values to nearby sites that are occupied by old buildings. Failure by the owner to use his site effectively in no way freezes the assessment, if market value assessments are made annually. In practice, Gaffney (1964: 280) argues, land value taxes “even tend to accelerate renewal by arousing sleeping owners . . . substituting a visible explicit cost for an invisible implicit one . . . compelling a more rational attitude toward ‘heirloom’ land, and in general needling landowners to do what their self-interest would seem to have dictated anyway.”

Whether land value taxes are in this way super-neutral is thus a question of fact rather than theory. Do landowners in fact exhibit ignorance or tardiness in putting their sites to the highest and best use? The general experience in Australia and New Zealand would seem to indicate that land value taxation does ferret out passive landholders.

The effect has certainly been to greatly stimulate the building trade. The object and tendency of this system of taxation is to compel land being put to its best use, so that the greatest amount of income may be derived from it, and rendering it unprofitable to hold land for prospective increment in value. (New Zealand Commissioner of Taxes, 1909, cited in Scheffel 1916: 107–108n)

The theory and evidence would seem to agree that land value taxation does force land into its highest and best use. However, this raises another question: Is this necessarily desirable? Can speculation be justified if it holds a site out of use until a better use arises in the future?

4.4. Market Failure that a Land Value Tax Can Solve

As we discussed earlier and as Cairnes (1873, 188–190, 210, 217) has observed, many of the classical economists did not accept the proposition that absolute private property in land would lead to Pareto-optimality.

Adam Smith and John Stuart Mill both objected on efficiency grounds to entails and the like—a view that would hardly be disputed today: the proposition that allocative efficiency demands that a living owner be able to allocate resources to their most profitable use seems self-evident.³⁴

We also saw that both Smith and Mill objected to land speculation in new countries and approved of legislation to restrain it. Smith argued, as did Henry George after him, that land speculation created an artificial scarcity of land, which hindered further settlers. J. S. Mill agreed with Wakefield that land speculation dissipated the productive power of the colonists already present. Others were later to argue that land value taxation would eliminate both of these undesirable effects.

Such arguments, however, raise the question as to how one decides what is desirable or Pareto-optimal when looking at land markets. The criterion that would appear implicit in most discussion is that land markets are inefficient if they fail to generate the maximization of the present value of expected rents in the aggregate.

The rent-maximization criterion is employed in demonstrating the inefficiency of free access to limited resources. It is implicit in the condemnation of landlord and tenancy laws as a hindrance to land improvement and conservation. It also features in the discussion of the optimal supply of public goods and the use of zoning to restrict externalities. It was for precisely this reason that Ricardo (Ch. XIV, ¶6) and J. S. Mill (BK V, Ch. 5, §1, ¶5–6) advocated the removal of impediments to land transfers.

Land has several characteristics, and criticisms of the efficiency of land markets tend to allude to the following:

- (1) Land is not reproducible at its original cost (zero).
- (2) Land does not generally decay or become obsolete with nonuse, unlike capital goods.
- (3) Land is spatial.
- (4) Land is more durable than capital goods.
- (5) Future uses of land cannot be known with certainty.
- (6) Land is an asset in portfolios.

These unique properties give rise to a number of interesting issues. For instance, the fact that land is not reproducible gives owners of superior resources an opportunity to establish monopolies in product markets by “locking out” potential competitors from access to valuable sites. Since future uses of land parcels are uncertain and since land is not subject to decay and obsolescence, this provides the opportunity for land speculation whether it is socially useful or not. Furthermore,

treating land as an asset can lead to suboptimal capital formation, as this “asset” is used to satisfy a desire for wealth holding. The discussion of specific arguments in relation to land value taxation and market efficiency will proceed now under the following headings:

General Efficiency Effects

- “unsound” versus “sound” speculation in land
- the “unearned increment” as a subsidy to capital or labor

Competitive Effects

- resource control as a barrier to entry
- tax cost versus interest cost as holding costs to land users

Spatial Effects

- land settlement
- urban congestion

Externalities and Public Goods

Temporal Effects

- land as a link between the present and future urban congestion
- the inter-temporal neutrality of ad valorem property taxation with respect to the choice of investment asset life
- the neutrality of land value taxation with respect to the discovery of natural resources
- the optimal extraction of natural resources and how land value taxation can be levied neutrally in this respect
- the taxation of rental versus capitalized land values and their equivalent neutrality

Capital Formation

- land value taxation as a stimulus to capital formation

Except where the argument is solely addressed to the neutrality of land value taxation, the following sections are aimed at elucidating the various types of market failure that land value taxation may correct. If those claims are true, then it would be shown to have the characteristics of a super-neutral tax.

Chapter 5

Some Practical Effects of Land Value Taxation

In this chapter, we seek to clarify some of the ways in which land value taxation affects economies. We will examine which forms of speculation are socially beneficial, the role of land value taxation in stimulating labor and capital, the ways in which privately held land blocks competition by serving as a barrier to entry, the ways in which low interest rates and low tax rates on land promote holding land out of use, and the effects of land value taxes on settlement plans.

5.1. Is Land Speculation Socially Productive?

Ever since Henry George argued the controversial thesis that land speculation was a major cause of industrial depressions, there has been strong disagreement about the existence of land speculation and the effect of land value taxation upon it.³⁵

The alternative positions appear to be as follows:

- (1) "Unsound" speculation does not exist; it would be irrational.
- (2) What speculation does exist is part of the market allocation process; it is socially beneficial and land value taxation would injure it.
- (3) Speculation does exist; it is not beneficial, but land value taxation will neither encourage it, nor deter it.
- (4) Speculation exists, is bad, and land value taxation will deter it.
- (5) Sound and unsound speculation both exist, but land value taxation will deter both.
- (6) Sound and unsound speculation both exist; land value taxation will penalize unsound speculation but will be neutral with regard to sound speculation. This is the position that appears to me to be correct. If so, it is *not* "inconsistent to argue for a land value tax as a means of decreasing [unsound] speculative activity and to maintain that such a land value tax is neutral with respect to [optimal] land use" (Mieszkowski 1970: 16) (bracketed words added to clarify aims of land tax advocates)

The first position, that unsound speculation does not exist, that it would be irrational for landholders to hold their land out of use while waiting for the unearned increment, was advanced by F. A. Walker (1883: 164ff). More recently, Murray Rothbard ([1970] 2009: 510) has argued likewise: since land is a permanent resource, it “can be used all the time, both in the present and in the future. Therefore, any withholding of land from use by the owner is simply silly: it merely means that he is refusing monetary rents unnecessarily. The fact that a landowner may anticipate that his land value will increase (because of increases in future rents) in a few years furnishes no reason whatever for the owner to refuse to acquire rents in the meanwhile.”

The simple logic of this argument has appealed to others, such as R. T. Ely (1922: 245). A recent critic, Charles F. Collier (1975: 167, 166, 217), has concluded that “Walker correctly contended that speculative holding and current use could quite easily be consistent.”

I do not find this argument compelling. Rationality is, indeed, a powerful human motive, but so also are hope, cupidity, and stupidity (H. G. Brown 1927: 391–394). Nor does rationality necessarily mean a narrow maximization of purely monetary rewards. In addition, future possible land uses are uncertain and some uses will require vacant or virtually vacant land for redevelopment. Land speculation is of the nature of a gamble and, as Adam Smith (BK I, Ch. 10, ¶25–32; Ch. 11, ¶78; BK IV, Ch. 7, ¶18) pointed out, and John Maynard Keynes ([1936] 1964: Ch. 12, §6) concurred, gambling, whether in lotteries, choice of profession, or in wildcat prospecting for minerals, tends to result in economic loss.

Thus there is no reason to assume that speculative landholding and best use (as opposed to current use) will be compatible. Hirsch (1901: 429–432) and Cord ([1979b] 2003: 233) have pointed out that land speculation involves underuse as much as non-use of land. A speculator who relies upon the plans of others for future uses, and keeps it underused in the meantime, is not performing a useful allocative function. That this happens “is simply too widespread to overlook and too well proven to redocument” (Gaffney 1973b: 17). Suburban land speculation sterilizes land and is not socially beneficial (Clawson 1962: 99–111; House and Home 1960).

Typically, the second position on land speculation has been held along with the first: what speculation does exist is part of the market allocation process, is socially beneficial, and land value taxation would hurt it.

Edgeworth (1906: 72) suggested that “as in other industries—if not quite so much as in other industries—the speculator is useful in finding a market for the article.” He went on to argue (1906: 73) that land value taxation might force a reduction in the activities of speculative builders and also induce a premature putting of land into use by landowners. Edgeworth’s arguments are defective for two reasons:

- (a) He was talking about speculative builders who want to put land to use, whereas speculative landowners want to wait before putting it to use. Surely, capitalization of the tax in a lower price of land would enable builders to buy the land more easily than before the tax.
- (b) Edgeworth gave no reason why it would be profitable for landowners to alter the rental stream and reduce the present value of land rents, which is suboptimal. As Charles Collier (1975: 217–218) points out, if the highest and best uses of land can be foreseen, the tax is based on the value those uses will give to the land.

Any attempt by the landowner to avoid the tax by choosing an inferior time pattern of rental uses will be nugatory, so long as others in the market recognize the superior uses and are willing to bid for the land on that basis. The market value of land is not contingent upon the actions of the landowner.

R. T. Ely (1922: 246–251; 1927: 129–130) formulated the doctrine that land being held out of use while ripening for a better use must have such losses of rental income debited against any increment in value in the higher use. From this view, it follows that the “speculative site-owner is, then, performing a great service to consumers and to the market in not committing the land to a poorer productive use” (Rothbard [1970] 2009: 511; [1954] 1997: 300; Knight 1953: 810). The inference drawn from such observations is that land value taxation would interfere with the efficient allocation of land uses both in the present and in the future.

The problem with this view of land speculation is that no proof is offered as to the manner in which land value taxation would interfere with the socially optimal maximization of the present value of expected land rents. This view seems to hold that the landowner is always formulating a wise sequence of land uses and seems to give no credit to the bids of the land users as the allocating mechanism. Moreover, land value taxation creates an incentive to maximize the present value of expected rents. In addition to the negative pressure caused by taxes based on market valuations of the possibilities of land use, the owner can still reap a positive reward if he discovers a more profitable use not known to the market. The value of the land's use is then worth more to him than to others, yet his assessment for tax is based on the market value, as determined by those others.

Thus, one can agree that speculators who accurately predict the best land uses are performing a worthwhile function and yet refuse to extend the recognition to speculators who perform no such function. One is also entitled to ask for proof as to how land value taxation hinders the maximization of the present values of rents.

The third view, that speculation exists, that it is not beneficial, and that land value taxation will either encourage it or will not deter it dates back to Ricardo. Frankly, I do not understand Ricardo's reasoning, which seems to depend on the idea that the tax would be totally arbitrary.

Another argument was given by Van Sickle (1927: 100–101) for the proposition that land value taxation tended to concentrate landownership in the hands of a wealthy speculative class. He suggested that the burden of taxes, based on capitalized value rather than land income, would force farmers to sell out agricultural land near cities to wealthy speculators, who would in turn lease out the land for predatory tenant cultivation prior to its new and higher use. Further, this sort of transition would be premature (Van Sickle 1927: 99).

Van Sickle (1927: 99–100) partly rebutted his own argument by admitting that the tax is neutral with respect to highest and best use during transition. Another objection to his argument is that it is perfectly logical to practice predatory cultivation on land that will soon be in urban uses for which soil fertility is irrelevant. As for the premature subdivision of agricultural land, Van Sickle's proposed

remedy of preferential assessment for agricultural uses would appear to be decidedly non-neutral in creating a class of farmer speculators who can hem in a city. The obvious answer to premature subdivision by speculators would appear to be higher taxes on land values to increase the costs of holding land unused. There is some evidence that land value taxation deters premature subdivision in this way (H. G. Brown 1949: 380).

The same answer is appropriate for those writers who suggest the experience of the Canadian West before World War I is proof that land value taxation does not deter speculation (Ferns 1919: 79–80; Hagman 1965: 774). Hagman somewhat misrepresented the views of R. H. Haig, who in fact suggested that tax rates in Canada were too low to stop speculation. Owens (1955: 74–76) agreed that higher rates would have been more effective in limiting speculation.

T. S. Adams (1916: 282) agreed that “a grave indictment could easily be drawn against land speculation,” but he felt that land value taxation was irrelevant to the subject. This conclusion flowed naturally from his argument that “competitive forces dissipate or diffuse part, all, or more than all of the so-called unearned increment” (Adams 1916: 282). In his view land value taxation would prevent this allegedly beneficial process. H. J. Davenport agreed that speculation retarded improvement. Yet, he believed that land value taxation would do nothing to stop speculation unless all economic rent was taxed. Indeed, Davenport (1917: 15–16) suggested that the operation of tax capitalization, by reducing the cost of land, would bring land speculation within the means of more investors. Davenport was evidently thinking that doubling rents would double land values, regardless of any land value tax rate. That much is true. But, he also incorrectly believed that the percentage return on a speculative investment would be the same before and after the tax, and there would thus be no deterrent to speculation. The mistake in Davenport’s view, as H. G. Brown (1927: 395–398) pointed out, is that he ignored the effect of the increased holding charges imposed in the form of taxes during the time the land is speculatively held unused for the increased value.

Brown (1927: 400–401) anticipated a more sophisticated counter-argument, by Paul Smith (1978), to the effect that since tax capitalization means a tax holding cost replaces an interest holding cost, total

holding costs for the speculator would be unchanged. This argument, Brown points out, ignores the fact that the tax lowers the capital gain on the land for which those constant holding costs are incurred. Either the same capital gain requires a higher holding cost or the same holding cost is associated with a smaller capital gain. Thus, concludes Brown, land value taxation will deter speculation, rather than encourage it or leave it unaffected.

The fourth view, that speculation exists, is socially wasteful, and will be deterred by land value taxation is preeminently the view espoused by Henry George and his followers. In this sense, George (1879: BK IX, Ch. I, ¶8; 1890c: 4–5) claimed that land value taxation would be better than neutral.

To shift the burden of taxation from production and exchange to the value or rent of land would not merely be to give new stimulus to the production of wealth; it would be to open new opportunities. For under this system no one would care to hold land unless to use it, and land now withheld from use would everywhere be thrown open to improvement.

George (1887b: 5) saw speculative holding of land out of use as being caused by expectations of community growth: “There is much land which is not used, or not put to its best use, because it is held at high prices by men who do not want to, or who cannot use it themselves, but who are holding it in expectation of profiting by the increased value which the growth of population will give to it in the future.” He went on to argue that expectations of land value increases could be self-compounding, just as “during the rapid depreciation of currency which marked the latter days of the Southern Confederacy” inflationary expectations “operated to carry up the price of commodities even faster than the depreciation of the currency.” This speculative advance in land values, he added, differed in kind from commodity speculation since it neither served to sustain production nor was subject to the restraint of additional supplies, land being physically given (George [1879] 1979: BK IV, Ch. 4, ¶13–14). T. N. Carver (1915: 298–302) also judged land speculation as socially unproductive. Others added that land, unlike commodities, neither deteriorates nor requires maintenance when unused (Trevelyan 1907: 32). (Land left fallow can even regenerate its agricultural fertility.)

What is particularly interesting about George's argument that land speculation is a case of market failure is that probably no economic writer before J. M. Keynes placed so much stress on the role of expectations. Just as Keynes ([1936] 1964: Ch. 12, §4) spoke of stability of the stock exchanges being dependent upon the "convention" that things will continue as they are, so George viewed speculative land values as largely self-sustaining. Both agreed that the object of the speculative game was to be gone when the conventional wisdom collapsed (Keynes [1936] 1964: Ch 12, §5; George 1890: 84).

Henry George's argument that land speculation exists, that land is withheld from use, and that land value taxation would deter this became the accepted view. Its logic was acknowledged by the British Royal Commission upon the Housing of the Working Classes, which in 1885 suggested a tax on the value of vacant building land (Moulton 1889: 10). T. N. Carver (1915: 300–302) agreed as to the undesirability of land speculation and added that not only would a land value tax deter it but would also force the scarce ability and talent devoted to it to be turned towards productive enterprise. H. G. Brown (1927: 390–402) clearly demonstrated that land value taxation would deter the withholding from use of land that could be rented out. E. R. A. Seligman (1921: 283–284), who had his objections to the single tax, had no trouble in agreeing as to its effect on speculation.

Enunciate any proposition in the subject of economics and you will not be kept waiting long for someone to contradict it. Henry George had claimed that land was held out of use and that land value taxation would force it into use. What better answer than to argue that some land ought to be held out of use, should not be prematurely developed, and hence that land value taxation should not necessarily be accepted.

We are thus brought to the fifth position on land speculation: that land is held out of use for both good and bad reasons. Thus, taxing land values would interfere with long-term holding of land for better uses as well as hurting the land engrosser.

A. W. Fox (1908: 73, 18–19, 64–71), Secretary to the Royal Commission on Local Taxation, faithfully recorded the view of some witnesses that landlords, far from withholding land, generally develop it prematurely:

[They] are only too anxious to increase their income by the creation of ground rents. . . . Thus land is often put upon the market before it is really ripe for building. A building or buildings may be then erected not generally suited to the situation, and the value of the remaining land thereby depreciated.

E. R. A. Seligman (1921: 284n.3) entered the discussion by criticizing Sargant (1890) for contradictory claims that a tax on land value will cause both overbuilding and hoarding by wealthy owners. The concern about distinguishing “ripe” from “ripening” land is echoed by Ralph Turvey (1957: 91–92):

A third claim of the advocates of the rating of site values is that the tax change would check “unsound” speculation. This is probably true, since the carrying cost of land with a high value for development will be increased. However, this will discourage all speculation, “sound” as well as “unsound.” The distinction between these two has not been drawn, and one may suspect that the term “unsound” has been used pejoratively rather than descriptively. Yet it is conceivable that a person ready to hold land for future development may, through his foresight, perform a useful role in allocating land between competing uses.

A criterion for deciding whether speculation is “sound” or “unsound” was enunciated by Donald C. Shoup. Given that the object is to allocate land to its most productive uses over time, D. Shoup (1970: 35) observed that the optimality condition is that the present value of rents be maximized. The problem is that since capital is not malleable, “once the land is developed, the construction outlay usually freezes the land into a particular use and fixes for a long time the services that the property will render.” However, such action does not freeze the land value tax assessment, a fact Shoup does not mention.

Using a Wicksellian capital approach, Donald Shoup (1970: 38) reached the intuitively correct conclusion that unused land should be held vacant for development so long as its rate of appreciation is greater than the rate of interest. He then modifies his model to include recurrent ad valorem land value taxation and concludes that this alters the profit maximizing result: land will now be developed when its rate of appreciation equals the rate of interest plus the tax rate. Consequently, Shoup (1970: 39) argued, “even a pure site value tax may not be perfectly neutral in its effect on [optimal] resource allocation”; land

development will be premature, and “sound” speculation will be deterred. (Parenthetical word added for clarification.)

Donald Shoup’s revitalization of the R. T. Ely notion of land’s “ripening” has been very influential. Writers both sympathetic to and critical of land value taxation have adopted the conclusion that *ad valorem* land value taxation forces land development sooner than is socially desirable. Sympathizers include Skouras (1974: 449–450; 1977: 145–159; 1978: 123–126) and R. Smith (1978: 52–57). Critics include Mieszkowski (1970: 16–17) and Bentick (1974: 451–452; 1979: 859–868).

This widespread acceptance is unfortunate because Donald Shoup’s result is fundamentally wrong. One technical reason lies in his mathematics. (When Shoup (1970: 38) derived his sixth equation from his fifth equation, he differentiated a function of a function as though it were a product of two functions.) A more fundamental reason is that he implicitly assumed that a developer can freeze his assessment by premature land use. This is simply not the way land value taxation works: assessments are based on and valued as though the land was vacant, and the value of a parcel rises with increased activity on surrounding land, not based on what is built on the parcel itself.

Consequently, a developer who prematurely invests capital on the land, preventing a later higher use, will find that increased tax assessments will cut into the later profits. Taking that future cost into account will render the contemplated use of capital submarginal, as it ought to be. Neither the proponents nor the critics of land value taxation mention this countervailing effect. Conversely, a tardy land developer is squeezed by rising assessments as he holds land vacant, instead of putting it to use. As Gaffney (1973a: 141) puts it:

Land taxes are neutral in their effect on date of conversion, so long as they are not contingent on the date selected. Noncontingency is the same principle that makes land taxes neutral towards other land use choices. Suppose someone were panicked by rising land taxes into premature urbanization of farmland . . . What would he gain? Either he would overimprove and lose money the first few years; or he would gauge his building to the slim early market, and in a few years be locked into an underimprovement while his land assessment and taxes kept on rising.

Gaffney emphasizes here that a tax is not neutral if it is contingent on the date of conversion. This is the obvious problem with development value taxes, increment taxes, transfer taxes, and capital gains taxes when land is sold for redevelopment. These taxes are not neutral because the amount of the tax varies according to when the conversion or other transaction occurs.

We are thus led to the sixth position on land speculation, namely, that sound and unsound speculation both exist and that land value taxation will penalize unsound speculation but will be neutral with regard to sound speculation. This view can be summarized as follows:

- (a) Optimality consists of the maximization of the present value of land rents.
- (b) "Sound" speculation creates patterns of land use over time so as to maximize present values.
- (c) "Unsound" speculation does not maximize the present value of rental flows; it necessarily involves either the excessive withholding of land from users or its premature use. Both types of unsound speculation can be found in practice.
- (d) Land value taxation is neutral with respect to "sound" speculation; it deters "unsound" speculation; it is continually forcing the highest and best use of land both now and in the future. Suboptimal land uses over time are less profitable because the same holding costs are incurred for a reduced capital gain in land value.

From the vantage point of the historian of economic thought, this position is implicit in Henry George's writings. When George (1887: 5; 1890: 83–84) spoke of speculation as being deterred by land value taxation he clearly had in mind underuse and premature use as well as nonuse of land.

However, H. G. Brown (1927: 399) advanced the discussion more than he realized when he showed that, under a land value tax, a speculator who suboptimally failed to put land to use while holding it for capital gains would earn a lower total rate of return than otherwise, whereas a land user who purchases land would be unaffected by such a tax. Unfortunately, Brown (1928b: 385–386) did not realize that a wise speculator who plans an optimal pattern of land use

over time would, like users in general, be unaffected by land value taxation. His remarks (1927: 401) on land value taxation operating as a tax on gambling should perhaps have suggested this. As Keynes ([1936] 1964: Ch. 12, §5), remarked:

The social object of skilled investment should be to defeat the dark forces of time and ignorance which envelop our future. The actual, private object of the most skilled investment today is "to beat the gun." . . . It needs *more* intelligence to defeat the forces of time and our ignorance of the future than to beat the gun.

Keynes ([1936] 1964: Ch. 12, §6) therefore wished to restrict access to the stock exchanges to those most proficient at accurately forecasting the future yield of capital assets. Land value taxation does precisely this in the land markets, and, to the extent that shares represent natural resource ownership, in the stock markets as well. As Becker (1970: 18, 26–27) and Gaffney (1973a: 141–142) observe, the speculator is forced by an actual cash-carrying cost to consciously plan an optimal timing of land use. The tax, as it were, asks him to put his money where his mouth is. The less optimal the pattern of land use, the less profitable it becomes as compared to its profitability in the absence of the tax.

The demonstration that land value taxation encourages the optimal timing of development can be found in Appendix 3.

5.2. Does Land Value Taxation Block or Stimulate Expansion into New Areas?

One argument for land value taxation as a corrective for market failure was furnished by its opponents. We saw in the discussion of the rent concept and the arguments over whether a tax on land values could be shifted that it was sometimes alleged that the "lure of the unearned increment" was an incentive to settlers, builders, and manufacturers to lower the price at which goods and services were made available to consumers.

In the case of settlers, the argument was put forward by J. B. Clark (1890: 23; 1899: 85–87), Alfred Marshall (BK V, Ch. 10, §2, ¶9–10), and, more strongly, by A. S. Johnson (1902: 32; [1914] 1917) and T. S. Adams (1916: 279). Johnson and Adams extended it to railroad building,

manufacturers and tenement builders. They argued that the unearned increment justified railway extensions that would otherwise not be made, that it reduced railway rates, and that buildings were not depreciated by owners because the unearned increment would compensate the owner who could thus charge less for products or for space. As Adams (1916: 282) put it, “competitive forces dissipate or diffuse part, all or more than all of the so-called unearned increment.”

This extravagant line of attack upon the “single tax” proved embarrassing to some of its other opponents. B. M. Anderson (1914: 811–813) was quick to point out that there was no reason for a profit-maximizing capitalist to accept a lower rate of return for capital sunk in a building than he could get elsewhere since he would get the unearned increment in any case. The existence of buildings on leasehold land raised *a priori* presumptions against the necessity of the unearned increment as a reward to capital. H. G. Brown ([1924c] 1979: 225–226) makes the same point about getting the increment regardless of the return on capital investments.³⁶

J. R. Turner (1917: 350–351) and E. R. A. Seligman (1916: 805–806) were similarly perturbed by the argument that the unearned increment was a necessary reward for settlers. That a subsidy was necessary to capital and labor in such cases was, they realized, a *prima facie* admission that the equi-marginal rule of optimal resource allocation was being violated; capital and labor would have been more productive elsewhere. Moreover, Seligman (1916: 806) wondered why a manufacturer on “increment” land needed to manufacture to gain the increment; why did “he not merely allow his land to increase in value, without bothering with the details of manufacturing?”

H. J. Davenport (1917: 18) and H. G. Brown ([1924c] 1979: 226–227) were quick to pick up the same point. They pointed out that to the extent unearned increments and land value taxes are foreseen, they are capitalized into the price land purchasers pay and are irrelevant to whether the land is cultivated or built on. Davenport (1917: 24–26) and Brown ([1924c] 1979: 230–232; 1917: 472–474) also agreed with E. R. A. Seligman that if an unearned increment was necessary to build railways or induce settlement, then whatever gains were made were at the expense of other, more productive undertakings. Interestingly enough, R. T. Ely (1922: 245–246; 1932: 139) provided inadvertent

support for Davenport and Brown's criticisms by arguing that U.S. land policies had in fact resulted in overutilization of submarginal land.

R. M. Haig (1915a: 100; 1915b: 835–837) noted that there was a way in which the unearned increment could be a stimulus to building or cultivation. If the unearned increment could only be achieved by incurring holding costs, and if government or lenders would only grant or finance land acquisition on condition that the land be improved, then perhaps the hope of a future increment might induce current sacrifices. However, on closer examination, Haig's arguments do not contradict those of Anderson and E. R. A. Seligman, who had argued that the increment should be irrelevant. Haig (1915a: 100; 1915b: 836) himself points to the fact that it is the holding charges such as taxes that force land use, and he also points out that the hope of the increment led to premature building and wasteful cultivation. Higher land value taxes, by reducing the increment, would deter such suboptimal land "development" and would prevent labor and capital from being allocated to activities that are submarginal.

The arguments about land value taxation and the unearned increment as a reward to capital or labor lead to the following conclusions:

- (1) Since foreseen increments or taxes will be paid for or allowed for by land purchasers, market sales of land involve no benefit or burden for capital or labor (Ellickson 1966: 97).
- (2) The existence of buildings and farms held on leasehold tenure rebuts the presumption that the increment is needed as a reward to capital or labor (Scheftel 1916: 311–314, 401–402).
- (3) Institutional arrangements that result in the use of the unearned increment as a subsidy to capital or labor would appear to violate the equi-marginal rule of optimal resource allocation. Davenport (1917: 24) jokingly proposes a method of preventing the accrual of such benefits: "if to hold the business sites, men had also to sit wind-buffed on the cornices of their skyscrapers, thereto they must have climbed . . . and numbly and coldly sat."

In particular, if the purpose of U.S. homestead laws was to open land to the user, land value taxation would have been a more

efficient method of doing so. It would have made speculation, whether by absentees or under-users, less profitable without imposing a burden on efficient users. That policy would also have weeded out the “settlers” who under-used their land because their aim was not so much to settle as to resell the land for a “turn.” As Scheftel (1916: 20–26) points out, one of the reasons for the adoption of land value taxation in Australia and New Zealand was the desire to break up large estates and open the way to closer settlement.

In short, the use of the unearned increment as a subsidy to capital or labor is deterred by land value taxation. That result is all to the good, for the process T. S. Adams called the “diffusion” of the unearned increment represents a suboptimal process of rent dissipation. The optimal policy is instead the maximization of the present value of rental flows, a maximization that will naturally take place if the equi-marginal principle is observed.

Perhaps the final words here on the efficacy of the “lure of the unearned increment” should be some of the first spoken by Henry George (1890: 83–84):

[O]wnership [of land] is not necessary to secure improvement. In New York today you will find buildings erected on land owned by other parties, erected on leases, on the security of possession for a certain time. Go into Chicago, and you will find buildings erected in the same way. . . . [Y]ou will find buildings erected on city land, not on long leases or a fixed rent, but with the contract that at short intervals a revaluation shall be made, and that the rent shall be increased as the land increases in value.

No man ploughs a field to get the rewards of its ownership: he ploughs to get the rewards of industry. No man builds to get the rewards of land-ownership: he builds to get the rewards of building. Perhaps that is a little too sweeping a statement. There are cases in which houses are built and improvements made to get the reward of land-ownership. Go, for instance, to some of those “boom towns” in the West. About Los Angeles you may find great hotels standing empty. Nobody lives in them and nobody ever has lived in them. They were erected as “bait for suckers” during the boom. In other places you may find railways covered up in mud and streets laid out where people are ploughing. That is the wasteful sort of improvement that is done to get the rewards of landownership . . .

To leave the rewards of mere land-ownership to individuals is not merely *not* to encourage real improvement, it is powerfully to *discourage* it. The American farmer strives, wherever he can, to get more land than he can possibly use profitably, in the hope of gain by the increase of value, and thus compels the next comer to go further on.

This statement is interesting for several reasons: (1) George clearly implies that the lure of the unearned increment is a case of market failure and that land value taxation would be super-neutral (corrective, not just neutral). (2) He anticipates the leasehold arguments of Anderson and Scheftel. (3) None of his critics, including J. B. Clark, seem to have considered it. Yet, for all of its importance, it seems never to have been cited by subsequent supporters or critics of George.

5.3. Can Land Value Taxation Prevent Monopolistic Behavior?

As we have discussed, economists historically saw a close connection between rent and monopoly. It is not surprising, therefore, that one argument put forward in favor of land value taxation is that it would reduce monopoly power and promote competition. The argument proceeds thus:

- (1) Monopolies in product markets cannot be sustained unless there are barriers to new entrants.
- (2) In the absence of specific legislative prohibitions against new entrants, such as patents, the most likely barriers to entry are to be found in the possession by existing producers of superior natural resources. Fee-simple land grants are franchises similar to other legislative grants of monopoly, since potential competitors cannot acquire land of equal value at the low historic cost that existing producers paid for theirs. Existing producers may choose not to fully exploit their superior resources so as to have in reserve the means to engage in extinction pricing. Under-used superior natural resources give, then, existing producers the power to effectively block entry by any new competitor who will have to operate from marginal resources. An interesting example of this in Australia was the successful defeat of two companies

that tried to break the long-established dominance by Carlton and United Breweries of the Melbourne beer market. Carlton and United had acquired its manufacturing and marketing sites over several decades.

- (3) Under a system of land value taxation, the possessor of superior natural resources is taxed upon the market value of such resources whether used, unused, or under-used. The pressure of the tax makes the voluntary withholding of such resources from use much more costly and tends to force these superior resources into their highest and best use. Once these resources are forced into use, competitors need not fear extinction pricing since existing producers can no longer wipe out marginal producers by increasing market supply from unused infra-marginal resources. (This is the process Adam Smith (BK I, Ch. 11, ¶70–75) described in his much misunderstood remarks about the price of coal being regulated by the most fertile mines.) In effect, land value taxation prevents resource owners from forgoing rents as a means of investing in a monopoly position in the product market.³⁷

Such at least appears to be the gist of various comments by Henry George (1879: BK III, Ch. 4, ¶7–12; 1883: Ch. 6, ¶8–22, Ch. 18, ¶16, Ch. 19, ¶29), George Geiger (1936: 87–97, 209–212), and Will Lissner (1979: 3). They have argued that land, when it is not taxed, can become the “mother of monopolies.”

I have not been able to find any extensive critique of this argument for land value taxation in the literature, possibly because it has been put forward by persons who have not been professional economists and possibly because the word “monopoly” has come to have a different technical meaning to economists.

However, Hayek ([1948] 1972: 92–106) and Kirzner (1978: 88–134) have criticized the economists’ concept of competition. The result has been that “reflection will lead to the realization that with all resources equally accessible to all present and prospective producers, no barriers to entry can be imagined” (Kirzner 1978: 99).

This brings us back, of course, to precisely the problem Henry George posed. He argued that ownership of land creates a monopoly that obstructs competitive producers or entrepreneurs over time, even

to future generations. To prevent this unequal access to natural resources by different generations of entrepreneurs, George (1879: BK IX, Ch. 1, ¶11) proposed perpetual leasehold tenure with rents constantly adjusted by competition. That would deny any producer an advantage over another solely by being the first to appropriate a resource. Against that view, Kirzner (1978: 233–242) argues that competition in establishing monopoly positions may benefit the consumer. In the case of natural resources, his arguments seem to have been anticipated by the criticisms leveled against the allegedly “beneficial” influence of the lure of the unearned increment

A question that might be raised about this theory of monopoly is whether it would ever be rational for the owner of monopolized resources to underuse them.

Kirzner (1978: 109–110) takes it for granted that it could well be profitable: monopoly rents “may reflect the ability of the monopolist resource owners to obtain greater revenues by withholding some of their resources from the market.” This is remarkably similar to Henry George’s theory of speculatively caused increases in land rents. Kirzner (1978: 110–111) also suggests that the owner of a monopolized resource may increase her rents by using it herself at low intensity rather than renting it in the factor market to someone who will make full use of it. Kirzner does not, however, specifically face the question as to how such behavior is profitable. Hayek’s ([1948] 1972: 113–114) concerns about how patents interfere with competition parallel criticisms of using resource ownership to facilitate monopolistic practices.

There seem to be two possible reasons why resources might be underused:

- (1) Apart from enjoying that best of monopoly profits—a quiet life—the owner of monopolized resources, by underusing them, creates an uncertainty in the minds of would-be competitors. This “manufactured uncertainty” represents a cost to competitors, but not to the monopolist, a cost that allows the monopolist to charge more than marginal cost. During the 1970s oil crisis, Solow (1974: 5) alluded to this sort of uncertainty as a reason why coal liquefaction might not set a tight ceiling for oil prices, given OPEC’s ability to suddenly undercut prices.

- (2) As in land speculation, the prospect of establishing monopoly in the product market may be such a glittering prize that it may lead to irrational behavior.

From a purely factual point of view there does appear to be some evidence that control of resources is a basis for market power (Gaffney 1967: 110–111, 136–137, 155, 334–335, 406, 413–414). If this is so, then perhaps the argument that land value taxation may promote competition would seem to deserve a closer examination.

In particular, there would seem to be some interest in relating land value taxation to spatial competition theory. Eaton and Lipsey (1976) have argued that location can be used as a barrier to entry in that an established producer may find he can earn pure profits by pre-empting sites. Wicksell ([1911, 1934] 1977: I: 131) and Gaffney (1973b: 28) also develop this line of reasoning. However, one could argue that such pure profits would be capitalized into land values (Chamberlain 1962: 268–269). In that case, land value taxation would diminish the efficacy of this particular method of protecting a monopoly position.

5.4. Taxes and Interest as Holding Costs

Most writers would probably implicitly accept the argument that since the process of tax capitalization substitutes an annual tax cost for an annual interest cost (actual or imputed), land value taxation is neutral with respect to the allocation of land to its most productive use.

In reality, however, there is a difference. As Henry George (1879: BK IX, Ch. 1, ¶11; 1883: Ch. 20, ¶14–16) and H. J. Davenport (1917: 29–30) realized, credit is not available to all would-be purchasers of land or is available at different interest rates, whereas the land value tax is the same cost to all. Lenders grant credit on the basis of security, not on the basis of productivity. Consequently, a person without collateral may not be able to borrow enough to purchase the land, even though that prospective purchaser could put it to more productive use than any other person. In contrast, land value taxation reduces dependence upon credit markets and encourages the allocation of landownership on the basis of productivity rather than collateral security.

Mason Gaffney (1961: 465–481) has refined the argument further by discussing how asymmetries in access to credit distort land markets. When prospective purchasers are bidding for land, they face differential interest costs, due, for example, to different marginal income tax rates or collateral security. Additional land will be more valuable to a low-interest purchaser even though marginal productivity to that user will be less. Since tenants lack secure rights over their improvements and thus have no incentive to preserve the fertility of soil, Gaffney notes that leasing does not necessarily operate to remove the problem of differential access to credit. Moreover, when land is appreciating (i.e., future rental flows are higher than present rents), then this effect is accentuated: the low-interest purchaser has even more of an advantage over the high-interest purchaser and the marginal productivities of their land holdings will diverge even more. Land value taxation obviously works against the misallocation of land in this manner.

Gaffney (1964b: 282–284; 1973a: 146–147) also points out that a land value tax has a beneficial liquidity effect in contrast to a tax on buildings, assuming the normal case of appreciating land and depreciating buildings. The building tax creates a cash-flow problem for owners of new buildings, who must pay a high tax at precisely the point when they are most heavily leveraged with debt. A tax on land values generally rises over time and thus falls more heavily when net cash flow is greater because construction loans have been retired. Ellickson (1966: 182–184) concurs with this.

There is another social benefit of landholders paying a tax rather than mortgage interest. A tax on the value of land rises and falls with external circumstances that affect the value of land (for example, agricultural and commodity booms, droughts, etc.). By contrast, mortgage interest costs are fixed; they do not vary with changing conditions. A land value tax therefore exposes farmers and other primary producers to less risk of bankruptcy during periods of economic fluctuation.

In terms of the practical realities of credit rationing, differential credit costs, and fluctuating land values, there is reason to believe that land value taxation, by substituting a tax cost for an interest cost, would in fact promote a better allocation of resources rather than being a purely neutral tax.

5.5. Effects of Land Value Taxation on Settlement

We have already encountered the view that the unearned increment was an incentive to land settlement in the American West. It was apparently first put forward by J. B. Clark (1890: 21–28) in his paper “The Moral Basis of Property in Land” at the Saratoga Single Tax Discussion. It was repeated by Marshall (BK V, Ch. 10, §2, ¶4), A. S. Johnson (1902: 32), Adams (1916: 279), F. H. Knight (1953: 809–810), and others.

The answers to this argument have been indicated above and I shall summarize them here.

- (1) If land value increments are anticipated and land is sold in fee simple to settlers, a land value tax would have no deterrent effect on land settlement: pioneers would simply bid less for frontier land and the tax would be capitalized up front.
- (2) If, however, land is given to settlers at below-market prices to encourage settlement there are further considerations:
 - (a) If grantees are under no obligation to develop the land and can freely resell it, the state has made a gift of its patrimony to no purpose: a land value tax would end up lowering the market price in the resale market as in case (1).
 - (b) If, however, as is generally the historical case, the state imposes cultivation or residence requirements for a period before the land can be resold, its policy can be impugned as an unlikely method for putting land to its best use.

As H. G. Brown ([1924c] 1979: 230–232), H. J. Davenport (1917: 23–26), E. R. A. Seligman (1916: 805–806), and J. R. Turner (1917: 350–351) pointed out, the method in 2(b) of promoting land settlement violates the equi-marginal rule. Capital and labor in such cases are being drawn from more socially profitable alternatives and therefore such a mode of land settlement is wastefully premature. Even if undertaken to secure national sovereignty, such a policy is less efficient than the alternative of a strong economy and a strong army. On a practical level, the bureaucratic effort to police such residence and cultivation requirements is both difficult and arbitrary, as the American frontier experience with evasion of settlement requirements testifies (Sakolski 1957: 124–147). An interesting historical judgment

on the wisdom of subsidized land settlement, so eulogized by J. B. Clark, was inadvertently provided by R. T. Ely, no friend of the "single tax." Ely (1932: 139–141) blamed agricultural suffering in the Depression on overproduction caused by policies that had brought too much land under settlement and cultivation.

Consequently, it seems fair to conclude that where land value increments are anticipated, land value taxation will either be neutral or deter suboptimal land settlement depending on the institutional arrangements adopted in regard to land alienation by the state.

We have not, however, discussed the question of expectations and unanticipated increments of land value in regard to land settlement and land value taxation. Adam Smith (BK IV, Ch. 7, ¶40–41), Wakefield (Kittrell 1966: 146; 1973, 87–92), and J. S. Mill (BK V, Ch.11, §12, ¶2) all recognized the wasteful use of land that is colonized and engrossed rather than settled as its value ripens. In the same manner, Henry George damned the deployment of labor and capital to purchase a ticket in the lottery of land value increments. Echoing Smith's objections to land engrossment in colonies, George (1883: Ch. 12, ¶20) argued that land speculation had a different effect in the country from its effect in the city:

Instead of unduly crowding people together it unduly separates them. The expectation of profit from the rise in the value of land leads those who take up new land, not to content themselves with what they may most profitably use, but to get all the land they can, even though they must let a great part of it be idle; and large tracts are seized upon by those who make no pretense of using any part of it, but merely calculate to make a profit out of others who in time will be driven to use it. Thus population is scattered, not only to loss of all the comforts, refinements, pleasures and stimulations that come from neighborhood, but to the great loss of productive power. The extra cost of constructing and maintaining roads and railways, the greater distances over which produce and goods must be transported, the difficulties which separation interposes to that commerce between men which is necessary even to the ruder forms of modern production, all retard and lessen production.

There was a practical antecedent to the concerns expressed by George. Dissatisfaction with the pattern of land settlement was one reason Australians and New Zealanders adopted land value taxes in the 19th century.

Neither J. B. Clark nor Alfred Marshall nor any other writer seems to have taken cognizance of this Smith-Wakefield-Mill-George line of argument. In effect, these latter writers objected to land speculation because they saw that if capital and labor locate submarginally in the hope of future land value increments, some current value added in production was being sacrificed now, not in exchange for future value added, but rather for a transfer income (rent) from land, which would have existed in the future in any case. Consequently, to hold out the possible rewards of land value increments as a reward to capital and labor was to conduct a lottery in which current production was sacrificed for no gain in future production. The argument advanced by F. H. Knight (1953: 809–810) and others, that land values are paid for by the pioneers' sacrifices, is seen as beside the point. Social policy that allows this to be so is simply inefficient; the purpose of social policy should be to encourage production, the bringing into existence of goods and services, rather than the wasteful appropriation of what would exist in any case.

Among the critics of land value taxation who see it as a hindrance to land settlement, none has ever attempted to come to grips with the argument that absolute private property in land would lead to an inefficient pattern of land settlement. Consequently, there seems to have been little discussion of land value taxation as a "via media" between the appropriative principle espoused by J. B. Clark (which would lead to premature settlement and dispersion) and the artificially high price of land policy advocated by E. G. Wakefield and J. S. Mill (which would artificially limit the extensive margin). Land value taxation as advocated by George can be seen as preventing the first problem of market failure without succumbing to the obvious economic objections to the second policy (Kittrell 1973: 90–97). George's proposal was, in fact, much the same as that made by James Mill (BK IV, Ch.5, ¶8–9) for state appropriation of rent in lieu of taxation.

However, collecting revenue based on existing rents would fail to capture value from expected future rents, such as the value existing in Philadelphia land even before the city was laid out (Sakolski 1957: 124–127). Ricardo recognized this problem with James Mill's original proposal (Carl Shoup 1960: 82). Henry George resolved the dilemma

by proposing to tax capitalized values, which would incorporate future expected rents.

Finally, the history of land settlement furnishes arguments for land value taxation rather than against it. As Yetta Scheffel (1916: 19–26) noted, in Australia, the failure of liberal land grant policies to produce closer settlement led to the adoption of land value taxes as a means of breaking up the great estates. In America, similar problems of massive land speculation and engrossment spawned the homestead grants as an attempted solution. That policy was, however, economically inefficient for the reasons given above, and it did not solve the problem in the long run, since Congress had already given away most of the good land (Sakolski 1957: 136–143, 277–294).

Chapter 6

Applying the Principles of Land Value Taxation

In this chapter, we will continue to examine the practical implications of land value taxation by considering how they apply to social problems. The cases reviewed here are urban congestion, externalities such as pollution, spatial public goods, intergenerational equity, issues related to capital investment, and the problem of applying the taxation of rent to the discovery and depletion of minerals.

6.1. Urban Congestion

Paralleling the argument that land value taxation would impede land settlement was the argument that land value taxation would promote urban congestion. Typically, advocates of land value taxation had spoken of “forcing land into use” and it was not long before opponents asked whether this would promote an unhealthy and undesirable congestion of population.

The arguments of those who argued that land value taxation would cause congestion are somewhat confused, but there seem to be two basic arguments:

- (1) If land value taxation is implemented as a means of reducing taxes on buildings then more building will occur in city centers and urban open space will disappear. In effect, it is argued that taxing buildings promotes a desirable spreading out of population.³⁸
- (2) The second argument, considerably more sophisticated, was devised by Edwin Cannan. His argument is that local rates are expended largely for the benefit of buildings and largely in proportion to their value. Consequently, if taxes on buildings are reduced and local authorities are willing to provide the same services regardless of the extent of building, then the substitution of land value taxes for taxes on buildings amounts to a subsidy to build, a subsidy that is greatest in urban centers. Cannan (1907: 44) argues that the situation is analogous to the dissipation of rent

in the case of a common access resource: "Over-cultivation, in its urban form of over-building, is encouraged by the provision of free services paid for by taxation on sites only, and so the surplus in the form of site-value is diminished."³⁹

We first note that these arguments are essentially about taxes on buildings and alleged subsidies to buildings rather than arguments about land value taxes per se. If we are unwilling to accept the results of consumer sovereignty in the matter of congestion, Netzer (1966: 207) argues that the

conventional wisdom in the study of public finance is that it is usually more sensible to try to effect desirable nonfiscal ends by direct measures—for example, to preserve open space by actual public acquisition. . . . A tax which is neutral with respect to land use decisions, as is the site value tax, therefore has a presumption in its favor.

In effect, those "who fear congestion of open common space and facilities—streets, schools, parks, air and water—rank high among people who oppose letting rent serve its economic function of forcing land to its best use" (Gaffney 1973b: 30). They forget that "it is not the [landvalue] tax that congests the population, but the growth of the town" (Davenport 1917: 29). If they wish to dispute the results of consumer sovereignty they must, as Cannan did, try to construct an argument based on resource misallocation.

Cannan's argument, however, fails to do this for the following reasons:

- (1) Beneficial expenditures by local authorities are not subsidies to buildings: competition ensures that building owners can only receive the going rate of return on their capital when invested in buildings and that the beneficial expenditures will be capitalized in higher land values. The subsidy is to landowners and, on Cannan's benefit principle, they should be taxed.
- (2) The analogy with rent dissipation by overcultivation of a common field is fallacious, since rent will be charged. As Bickerdike (1912: 13) noted, "differential advantages would still lead to differential charges" and the proceeds of a site value tax "would not be given back in the form of low rents in the centre of town," which means centralization would not be subsidized.

Although Cannan does not mention it, there is a sense in which the adoption of land value taxation by a local area could lead to congestion if other areas do not adopt the same policy. As Davenport (1917: 28–29) observed, in such a case the land value taxing area would grow in population and capital more rapidly than areas that taxed labor and capital. This is then a problem of the second best—the global distribution of population will not be optimal. However, it may be answered that policymakers can only optimize for their own jurisdiction and, as in the case of tariff reduction, if unilateral action can increase welfare in that jurisdiction, they would be foolish to wait on others. Moreover, as Davenport ([1914] 1917: 15–16) noted and opponents of the single tax agreed, the adoption by one area of such a policy would put pressure on others to adopt the same policy as they lost capital and labor to jurisdictions with land value taxes. (That actually seems to have happened in New Zealand and South Australia.) Sometimes, it seems, competition can elicit the adoption of better economic policy as well as the production of desired goods.

Returning to the argument that the substitution of land value taxes for taxes on buildings would lead to congestion and the loss of urban open spaces, there are quite a few points to make.

First, what is “congestion”? Is it too many people per acre or per room? As Pigou (Ellickson 1966: 106) and Haig (1915a: 96–97) realized, congestion per room will be relieved by more building. There is also evidence that the adoption of land value taxation in lieu of taxes on improved properties helped to reclaim slum areas in Australia and New Zealand (Silverman 1947: 239). In contrast, what really happens when buildings are taxed is that although density is lowered, lot coverage is increased. “By putting a premium on horizontal spread, it [a tax on buildings] encourages the building to invade the yard . . . A corollary is artificially forced demand for land” (Gaffney 1973a: 131). This, of course, wastes what would have otherwise been open space.

A second question to be asked is what is “open space” anyway? Does it include parking lots, weed-infested vacant lots, or demolition sites? Are private lawns behind barbed wire really of the same amenity value as public gardens (Gaffney 1969: 182; Lindholm 1972: 155)? Mr. Costelloe, the representative of the London County Council at the Royal Commission on Local Taxation, gave a blunt reply: “It has

always seemed to me that the reply was irresistible—that open spaces held for private use and pleasure are not in the same category as public open spaces at all, and that in so far as it is desirable (as it clearly is) that spaces should be kept free from building to the public advantage, it is the obvious course, and in the end much the cheaper one, that these spaces should be acquired by the public and managed for the public utility” (Fox 1908: 69, 115).

Land value taxation, by depressing the market price of land (though not its value), makes it easier for public authorities to acquire land for public purposes, such as parks. In fact, it even provides an economic criterion for the provision of parks: public use of land for parks or historic buildings can raise adjacent land values by enough to make good the lost revenue (Carret 1890: 100–102; Adam 1907: 183–186). G. L. Hoxie (1915: 172–173) noted this “park effect” in a particular case in New York City and remarked that it would have been profitable for owners of surrounding property to buy a demolition site and have it turned into a park. Indeed, intelligent land developers in many cities find it profitable to incorporate open space in their projects to enhance the sale value of their projects (House and Home 1960: 164k).

The same principle can be applied in the public sector. Land value taxation encourages cities to promote amenity values by appealing to their fiscal interests (Adam 1907: 183–184; Tucker 1958: 85). This works for precisely the same reasons the “park effect” appeals to private land developers. According to one report, similar motives prevented undue congestion in Australia: “With improvements exempted from taxation, owners were encouraged to erect a better type of building, and it would be a foolish action on their part to spoil the appearance of a fine property by placing it on a small area of land” (E. J. Craigie, MP, quoted in Bittenheim 1940: 143). In contrast, under the American property tax, when the owners of the Seagram’s Building in New York set back their distinguished building from the street and created a plaza for the public to enhance it, the New York City Tax Commission raised the assessment by about 40 percent over the normal formula because of its “prestige value” (Life Magazine 1963: 4).

From this information, we can reasonably conclude that a tax on buildings does not prevent “congestion”—it makes it worse. An alternative, though questionable, method of alleviating perceived conges-

tion is zoning (Buttenheim 1940: 141). If zoning seeks to eliminate harmful externalities in land use, it will avoid improvements on one site that lower the value of neighboring sites. This implicitly has as its objective the maximization of land values in the aggregate. Whether this works in practice is debatable. Overzoning, such as large lot requirements and excessively strict building codes, risks reducing value by artificially withholding land from use (House and Home 1960: 119; Tucker 1958: 26; Gaffney 1973a: 124–126; Van Sickle 1927: 114). This goal is obviously in harmony with the fiscal concerns of a land taxing jurisdiction.

“Congestion” often refers to overcrowding of public spaces or the commons as well as crowding of private quarters. In this connection, there are numerous advocates of “congestion charges,” such as toll charges for bridges, motorways, and the use of inner urban areas, as in London or Singapore. As Hotelling (1938) recognized, true scarcity rents should be charged as part of optimal short-run marginal cost (SRMC) pricing for the use of public facilities but, where there is no real congestion, the whole cost of fixed infrastructure should be met by taxes on the land that benefits from that infrastructure. Hotelling thus described toll charges for New York expressways as inefficient reversions compared to land value taxes. Hotelling appears to have assumed that it would be optimal to build infrastructure so that congestion would be limited and therefore SRMC pricing would generally imply a low or zero charge for users.

The problem with financing public works with tolls is that it creates a perverse incentive not to provide additional infrastructure. If congestion is to be charged for, those congestion charges should be earmarked for expanding the infrastructure to alleviate the social costs of congestion. They should not be appropriated by treasuries or private monopolists with a vested interest in profiting from the continuance of scarcity. A private monopolist or short-sighted treasury able to exploit growing congestion from ever-rising congestion charges has no reason to destroy its free cash flow by building another bridge or tunnel before it absolutely has to do so—only when the congestion has become so bad that users start abandoning the infrastructure such that monopoly profits start to fall. User charges that are not earmarked towards infrastructure expansion thus tend to result in

under-engineered and deferred infrastructure provision. As Hotelling recognized implicitly, land value taxation can allow infrastructure to be provided whenever the benefit-cost ratio exceeds one, as may be gauged by the anticipated effects of the infrastructure on land values. This means that serious congestion may be preempted, and user charges can be limited or found unnecessary.

Australia provides a case study of what happens when methods of financing infrastructure are faulty. Over the past 30 years, the Australian land value tax system has slowly been replaced by a user-fee system for the provision of public works in water, electricity, and roads. These “reforms” were generally justified by references to “improving economic efficiency.” But experience has led to absurdities such as toll roads going bankrupt because user charges were so high that the roads were under-used. Public roads have been closed to divert traffic onto monopolist-owned tollways. Tollways are now being expanded from two lanes each way to three lanes 15 years later than when first needed and at much greater expense than if the tollway had been adequately engineered in the first place. One tollway had an extra 20 years added to the concession because the merchant bankers re-engineered it to solve some political objections for the government. As the head of one merchant bank once remarked to me: “We believe governments should provide infrastructure, but, if they won’t, we are happy to do it for a profit.” Private profit, which is so socially useful as an incentive in competitive markets, is quite the reverse in monopoly situations.

Some advocates of land value taxation have put forward the proposition that rather than land value taxation being a *cause* of congestion, the *failure* to tax land causes congestion. When land is not taxed, the possibility of profit from land speculation leads to a wasteful under-use of land in urban areas. That, in turn, causes inner-city congestion and suburban sprawl with its leapfrog and haphazard development. Clawson (1962: 107) suggests that the social waste caused by urban land speculation is an inevitable result of the institutional structure of private landownership. Conversely, when land is taxed, land previously held out of use for speculative purposes will become available to builders, easing the congestion in other parts of the city (Tucker 1958: 32–33). This thesis goes back to Henry George (1890c: 6), who argued:⁴⁰

The tax we would increase would destroy that monopoly of land which is the great cause of that distribution of population which is crowding the people too closely together in some places and scattering them too far apart in other places. Families live on top of one another in cities because of the enormous speculative prices at which vacant lots are held.

George's idea was that land markets are inherently prone to inefficiency because of what Adam Smith (BK I, Ch. 10, ¶29) called "the over-weening conceit" of most people, and "their absurd presumption in their own good fortune." That mindset leads landowners to hope for easy capital gains rather than to actively put their land to its best use. Congestion is simply one of the consequences of people gambling on land value increments.

Many writers have tended to see land speculation and the urban sprawl it creates as wasteful for the additional social infrastructure demanded and the premature sterilization of agricultural land. This is all true enough, but fewer seem to have realized that there is even a form of urban land speculation that resembles the sort of speculation for which Henry George criticized the American farmer.

In contrast to the speculation that involves the uneconomic non-use of land, this speculation consists of the premature committing of land to use. Just as the rural settler, lured by the unearned increment, deployed capital and labor on land when it was uneconomic to do so, urban land users may acquire and build on suburban land before it is economically justifiable to do so. They build in advance of demand, accept sub-competitive returns on labor and capital (negative land rent), based on the hope that the unearned increment will make up for their initial losses. Often, the firm that prematurely builds on suburban land is an existing firm trying to protect existing markets from potential competition at the fringe. Such a firm can, in effect, offset the cash drain caused by negative land rents from premature expansion against the cash surplus over capital costs its existing sites allow it to earn. This process is favored by the income tax treatment of current losses and capital gains (Gaffney 1970–1971: Pt. IV, 423).

There are, therefore, reasons for thinking that land value taxation does not increase congestion. It is not only neutral with respect to

optimal spatial patterns of economic activity, but it would in fact promote the optimal location of labor and capital. That is also the conclusion of Tideman (1995).

I have dwelt on this question of the impact of land value taxation on urban congestion at some length because it is one of the most intuitively obvious arguments against land value taxation. As I have explained, however, the land value tax is *prima facie* neutral, and there is some reason to attribute massive conurbation to a combination of land speculation and other taxes.

Finally, if other taxes and land speculation have led to suboptimal spatial allocation of labor and capital, to that extent rent has been dissipated. The resulting statistics of land values, which have been reduced by this misallocation of space, may understate the revenue potential of a tax on land values.

6.2. Internalizing Externalities

We saw earlier that some economists have noted a connection between externalities, land rents, and property rights.

The charging of rent secures Pareto-optimality while the failure to do so dissipates the value of a free-access resource in congestion externalities (Gordon 1954; Dales 1968a; Peterson and Fisher 1977: 687–689; Knight 1924: 585–587). J. B. Say (BK II, Ch. 9, §1, ¶3) clearly foreshadowed modern observations that ownership of a scarce natural resource is essential to efficient resource allocation:

The sea and the wind can at the same time convey my neighbor's vessel and my own. With land it is otherwise. Capital and industry will be expended upon it in vain, if all are equally privileged to make use of it; and no one will be fool enough to make the outlay, unless assured of reaping the benefit. Nay, paradoxical as it may seem at first sight, it is, nevertheless, perfectly true, that a man, who is himself no share-holder of land, is equally interested in its appropriation with the share-holder himself.

Say then illustrated the necessity of pricing scarce land by contrasting the inefficiency of common lands among primitive peoples with the productivity of enclosed European agriculture.

Henry George (1879: BK IV, Ch. 2, ¶10–18; BK IX, Ch. 1, ¶6) noted that synergistic externalities were reflected in land rents. He also formulated the proposition that the law of diminishing returns could be viewed as a result of congestion externalities. George's (1898: BK III, Ch. 4, 6, 7) argument was that spatial concentration at first produces external economies and later external diseconomies, but the existence of rent would optimally balance these. He thus agreed that rent must exist to secure economic efficiency but, unlike J. B. Say, George (1879: BK VIII, Ch. 2) felt that the distributional ethic that gave rise to the commons ought to be honored through the appropriation of such rent by the state for the common benefit. In effect, George was arguing, like the Physiocrats, for a modernized version of the feudal revenue system, but without feudal restrictions on the free play of competition. In this way, George sought to combine both equity and efficiency.

The Coase Theorem (Coase 1960: 8–9) involves the proposition that, in the absence of transactions costs, the establishment of property rights, followed by negotiations among the parties involved, can eliminate externalities as a policy problem. In essence, the Coase Theorem sees the problem of externalities as the problem of the inefficiency of free-access resources (Gould 1973: 59, 61–62, 66).

D. T. Dick (1976: 192–193) has proposed that the problem of threats vitiates the Coase Theorem's premise that allocation of property rights will be sufficient to eliminate externalities because bribes might have to be paid to forestall new entrants from polluting. This need not be correct. If property rights in the form of pollution licenses are leased annually in limited quantities from the state, those who wish to limit pollution do not have to bribe anyone. They simply have to compete for pollution rights and not use them. Conversely, any serious threat to pollute must be backed by ownership of a pollution license. (The original threat argument apparently presupposed a free-access resource.) Yet if the state charges for these licenses, why would a firm pay for a resource it did not plan to use? Current state leasing of pollution licenses (a form, in effect, of land value taxation) makes such threats empty. This is the same reasoning used earlier regarding the power of land value taxation to remove the threat of predatory pricing by owners of superior resources.

However, this objection does suggest a real problem with the Coase Theorem. If there are many potential victims of pollution, a free-rider problem could emerge (Mills 1979: 3). Why should any one individual opposed to pollution compete to purchase a license for non-use when that action will primarily benefit others. The holder of the unused license receives little benefit from non-use. One is not always capable of securing exclusive access to the good one does for others (Gould 1973: 59). As George (1879: BK IX, Ch. 1, ¶6) put it: "Nature laughs at a miser." To sum up, the problem of externalities has a public goods aspect that cannot be solved, like the problem of free-access resources, by the assignment of property rights.

This can be seen by considering whether in fact property rights existed with respect to environmental amenities. Contrary to what seems to be assumed, they did. As Henry George (1892: 162–170) pointed out in his critique of Herbert Spencer, property rights to air, light, and water already existed in the form of land titles, the value of which reflects localized environmental externalities. Land titles at that time represented a "tied sale" of space, air rights, mineral rights, and water rights (Gould 1973: 63, n. 10).

If the assignment of property rights were sufficient, restrictive covenants by voluntary agreement should have naturally solved the problem of environmental externalities. In fact, restrictive covenants can become a barrier to the best use of land (Carret 1890: 103–105). The inefficiencies of the tied sale could be overcome by "voluntary zoning," which could break up the bundle of rights implied in a land title so that aggregate values were maximized. Yet it could be argued that a system of property rights based on multiple side-agreements is inefficient because of transactions costs. Thus, it is doubtful if air routes could have been developed if the old legal rights of landowners "from the earth below to the sky above" had been strictly maintained.

Nevertheless, a system of transfers of private rights still does not deal with the public goods aspect of individual or public expenditures to reduce pollution. As Yandle and Barnett (1974: 392–400) explain, public leasing of "pollution rights" is a form of land value levy. Whatever system of property rights exists—and there is merit in designing it so as

to minimize transaction costs—externalities remain a problem. This is suggested by the problem of deciding the optimal amount of “pollution rights” to lease on an annual basis.

As Coase (1960: 2) and others have noted, the physical existence of an externality is a product of reciprocal causation. This thought can be traced back to Henry George (1897: BK III, Ch. 5, Ch. 7; 1879: BK IV, Ch. 2, ¶10–18) and Alfred Marshall (BK V, Ch. 11, §1–2) and may be summarized thus:

- (1) Externalities are spatial in nature.
- (2) Spatial relationships are not of unilateral creation but are reciprocal relationships created by individuals.
- (3) Since capital and labor are mobile and compete over space, it will be rent that reflects externalities in the “public value” of land.

In some discussions of externalities, the importance of the spatial quality of land in accounting for externalities has been ignored. Meade (1952), for example, ignores the existence of land altogether. Gould (1973: 59–63) criticizes Meade’s conclusions on these grounds and notes that land rent can solve the problem of free access. Coase’s (1960) argument, as Nutter (1968: 503–507) observed, amounts to the observation that the assignment of liability for damages will not affect economic efficiency but rather the relative distribution of rent between landowners. Nutter does not emphasize that an externality can also lower aggregate rents. Nutter’s reasoning is reminiscent of Marshall’s (BK V, Ch. 15, §3, ¶14; Ch. 10, §5, ¶23, n. 95) way of arguing that rent does not enter into price.

However, given transaction costs and the free-rider problem it may be observed that the mere existence of property rights in land will not solve the problem of externality: one landowner may increase his rent by a noxious land use, even though adjacent land values may fall by more than his gain. This is clearly suboptimal and yet may be individually quite rational. Yes, the externality will be accounted for in land rents but, no, it will not be internalized unless all the relevant land is subject to one unifying ownership.

Land value taxation works against the dissipation of aggregate rent by reserving its benefit “to a unified directing power” (Gordon 1954:

135). Just as a private owner of a land parcel uses the maximization of rent as the criterion for controlling congestion externalities on his parcel, so the effect of land value taxation is to encourage the state to adopt the optimal pollution and zoning policies that will maximize land values over all parcels. Gaffney (1968: 255), Stull (1974: 346–347), Helpman and Pines (1977: 982, 986), and Bickerdike (1912: 10) all seem to agree that maximization of aggregate land values is the optimal policy goal.

Land value taxation assists this goal in several ways:

- (1) Obsolete restrictive covenants would tend to be relinquished (Carret 1890: 103–105). Land value taxation similarly penalizes the fiscal base of local governments that indulge in “over-zoning.”
- (2) Since an individual polluter would no longer receive the benefit of noxious activities in the form of super-normal profits capitalized into his land value, the motive to pollute would be weakened.
- (3) In effect, land value taxation internalizes the externality through its assessments. If the polluter’s activity raises his land value, his tax rises. Conversely, the victims are compensated by a reduction in tax liability as their land values are depressed by the pollution. If the net result is a deficit to the fisc, a more restrictive policy on pollution is indicated. As Macaulay (1975: 92–98) and Dales (1968b: 801–802) recognize, the optimal amount of “pollution rights” to lease is determined by what maximizes the value of all natural resources, land and pollution rights included. This question is obviously crucial to proposals to issue pollution rights.
- (4) In contrast to income taxation, there is a neat congruence between optimal pollution rules and the state’s fiscal interests under land value taxation. Land value taxation recovers those benefits of public pollution abatement expenditures that are capitalized into higher residential land values. In contrast, such capital gains are largely untaxed by income tax systems and, in addition, the fact that the tax system treats private pollution expenditures as tax deductible would seem to create a conflict between environmental and revenue objectives.

In sum, if “land” is taken in the classical sense to embrace not only land surface but air, light, water, and all other natural resources, land value taxation naturally helps to put into effect the general recommendation of economists that environmental problems be dealt with by market mechanisms (Kneese and Bower 1968: 141). The state resembles a feudal landlord obliging his tenants “to contribute in proportion to their respective interests in the estate” (Smith: BK V, Ch. 2, ¶24). It thereby prevents the “tenants” from using the earth wastefully.

6.3. Supplying Spatial Public Goods

We have seen previously that the argument that all taxes, public expenditures, and externalities will be capitalized in land values can be traced from the Physiocrats, Smith, George, and Marshall to the present day. It was therefore natural that the argument would be put forward that since public expenditures were capitalized in land values, it would be efficient as well as equitable to tax those values. The general notion was that public monies should be spent on parks, public works, and the like, so long as the cost could be defrayed by the increased revenues represented by the augmented rental values (Carret 1890: 102; Tucker 1958; Adam 1907: 174–175, 177).

This argument has come under scrutiny for the purposes of cost-benefit studies (Lind 1973: 188–207; Pines and Weiss 1976: 1–13; Polinsky and Shavell 1976: 119–129; Arnott and Stiglitz 1979: 490–496). The general conclusion would appear to be that the benefits of a public project are only exactly measured by changes in land values if individuals are identical and the area is small and open, which means that capital and labor can migrate freely, and the improvement does not affect their returns. This is what one would expect, but there is perhaps a point worth making in regard to a closed economy. In this case, it may appear that, if the benefits of public expenditures are also reflected in higher real incomes as well as land values, then labor and capital incomes should be taxed as well. However, unlike land values, labor and capital would, through competition, benefit uniformly. Therefore, a uniform tax to recover uniform benefits enjoyed by labor and capital might negate the value of the project so far as they are

concerned. The fact that, in a closed economy, labor as well as land can benefit from public expenditures does not of itself establish the value (in terms of maximizing the utility of individuals) of taxing wages as well as rent. Since the tax on rent is non-distorting, and the tax on labor distorts choices, one would presumably exhaust the revenue capacity of the tax on rent before taxing labor. If the public expenditure consisted of private goods given to labor, it would certainly be better to leave labor untaxed instead and go without the project.

On the other hand, if a pure public good were being provided, it may be efficient to tax labor income as well as rent. In that case, the gain in utility from the public good must cover the losses in utility from taxation: a wage tax directly reduces production of private goods and indirectly reduces public goods by lowering the amount of rent available for taxation. Some light on this question has come from models of the Pareto-optimal distribution of population among cities. The conclusion drawn from these models is that even if

labor is elastically supplied, it is still true that if there exists a finite optimal population size it entails rents equal to government expenditure. . . . This is a remarkable result. Not only was Henry George correct that a tax on land is nondistortionary, but, in an equalitarian society, in which we could choose our population optimally, the tax on land raises just enough revenue to finance the (optimally chosen) level of government expenditures. (Stiglitz 1977: 281–282)⁴¹

This is the “Henry George Theorem,” which proposes that where spatial concentration is due to a pure local public good and where population size is optimal, differential land rents equal expenditure on the public good. The theorem has been shown to hold in all large Pareto-optimal spatial economies made up of local economies in which differential land rents (DLR) are well defined (Arnott and Stiglitz 1979: 472, 488, 498).⁴²

The basic reasoning behind the “Henry George Theorem” derives from the idea of rent as a surplus over cost. As Arnott (1979: 76) puts it:

The benefit from the marginal resident is Y , the increase in production attributable to him, while the cost is the value of land, private good and transportation services consumed by him. When the government imposes

a head tax of the right size, P/N , to finance the level of public good chosen, $[P]$, the value of land, private good and transportation services consumed by each resident equals the resident's income net of tax, $Y - P/N + DLR/N$. Thus the benefit of a marginal resident equals the cost when $P = DLR$ [public goods expenditure = aggregate differential land rents]. Population $[N]$ is too large when $P < DLR$ and too small when $P > DLR$.

Essentially, the models in which the Henry George Theorem has been established are models of optimal population size. The theorem takes the form: *given* P , the level of public goods expenditure, there exists a population size, N^* , such that when $N = N^*$ then $P = DLR$, the public good cost equals differential land rent, and per capita utility is maximized.

In the articles in which this theorem is formulated, when the authors discuss migration, they seem to think in terms of a head tax rather than a rent tax (Flatters, Henderson, and Mieszkowski 1974: 105). Migration incentives are not the same under these two taxes, however. Arnott (1979: 77) seems to forget that a change in the level of public goods changes the optimal size of the city.

Contrary to other authors who have discussed this model, I do not see why the proposition cannot be formulated in the converse fashion: given a population N , the optimal level of public goods expenditure, P^* , is that which equals R , the differential land rents created by population N . This proposition would seem to follow naturally from the observations that P can be arbitrarily chosen and that optimal city size, N^* , is an increasing function of P . In other words, if the economy is closed and Pareto-optimality cannot be achieved by migration, perhaps it can be achieved by adjusting the level of public goods expenditure to the level of differential rents created by the given population.

A different, but closely related, line of inquiry about the relationship between land rent taxation and public services has focused on the use of such taxes to subsidize sales at marginal cost by increasing returns industries. This suggestion was made by Hotelling (1938: 256–257), but it can be seen earlier in the following argument put forward by Chomley and Outhwaite (1909: 112–113), who briefly considered the problem of setting railway fares for a nationalized railway system:

The problem would yet have to be solved of how to render transport services without demanding monopoly charges. The only way in which to solve this problem is to follow the precedent of the roads. When a local body constructs a road, it does not levy a charge on carriers to meet the cost of construction. The road is made free to all, and the cost is thrown on those who get a special benefit from its construction, namely, the land-owners. . . . Consequently the fare or freight charged by a carrier on a public road has not in it any element of the cost of construction of the road; it solely represents the cost of carrying the goods or passengers, and is a return for capital expenditure and labor, as fixed by open competition amongst carriers. Now the nationalizing of the railways can be carried out in such a manner as to confer enormous benefits upon the community if the principle of the public road be maintained.* The cost of the railroad should be met by levying upon the land value created and maintained by its construction. Then the state as carrier would only have to charge for its services at actual cost—that is to say, freights and fares would only have to cover real capital expenditure on improvements, salaries, wages, and running costs. [*Author (Dwyer) interjects here: At one time, this principle was implemented in the United States by requiring private railroads to allow others to run their trains on the tracks when not in use by the owner.]

This suggestion of welfare maximization through the policy prescription of marginal cost pricing in conjunction with a land value tax to recover the deficits of decreasing-cost industries that will be reflected in land rents has been pursued by Mason Gaffney (1962: 143–144, 159–163) and William Vickrey (1977) in specific models. Their basic conclusion is that “full efficiency thus requires that all such land rents [due to urban agglomeration] be devoted to the subsidy of these decreasing-cost industries, and the appropriation of these rents by landlords for other purposes precludes the achievement of full efficiency” Vickrey (1977: 334). (Bracketed words added for clarification.)

Vickrey’s use of the term “subsidy” is somewhat misleading, because the social optimum is achieved when users pay the SRMC (short-run marginal cost) and infra-marginal costs are paid from land rents. A land value tax recovers what would otherwise be a subsidy to landholders from the provision of infrastructure that adds value to their lands. As Hotelling realized, paying for utilities from user fees alone is an exercise in economic policy retrogression. The system of privatized toll roads, electricity, water, telecommunications, and other

networks that recover costs solely from users (as opposed to all beneficiaries) are economically inefficient if the user fees are above SRMC.

Brief as it has been, this sketch of the interrelationship between public goods, decreasing-cost industries, and land rents will perhaps suffice to make the point that the benefit argument for land value taxation has had a basis in arguments about economic efficiency and market failure as well as a basis of ethical judgments.

6.4. Land Speculation vs. Hoarding of Money

For the importance of money essentially flows from its being a link between the present and the future . . . We cannot even begin to discuss the effect of changing expectations on current activities except in monetary terms . . . So long as there exists any durable asset, it is capable of possessing monetary attributes and, therefore, of giving rise to the characteristic problems of a monetary economy.

Keynes ([1936] 1964: Ch. 21, §1) (emphasis in original)

As Keynes ([1936] 1964: Ch 17, §5, Ch. 23, §6) himself realized, land is a durable asset and could be the subject of speculative purchases. He seems to have viewed land as a form of capital and a determinant, at times, of the rate of interest. This is in contrast to the traditional theory that land values are derived by capitalization of rents at an interest rate determined elsewhere. It is not surprising therefore that, when we analyze the comments of pre-Keynesian writers on the role of the unearned increment as a speculative prize, we see hints of the following argument.

- (1) Since the future is uncertain, expectations of increases in land values may cause land to be prematurely brought into use or withheld from use or under-used.
- (2) In any of these cases, there is a current loss of productive power, which means that capital and labor earn subnormal rewards (George 1879: BK IV, Ch. 4, ¶1–5; 1890b: 83–84). This current loss is willingly suffered in the hope that future rents—a transfer payment—will make good the loss from the point of view of the individual owner (Haig 1915b: 836–838).

- (3) But future rents will represent future surpluses over future real labor and capital costs: current real costs incurred to acquire title to these rents do nothing to generate them (H. G. Brown 1917: 471, 474–477).
- (4) Therefore, land speculation can be a means of making future generations subsidize the misallocation of labor and capital in the present (Davenport 1917: 17, 22–25). The process is analogous, though not identical, to the creation of a burden on future generations by the issuance of public debt for unproductive purposes (George 1883: Ch. 16). The burden of debt usually involves interest payments financed by distorting taxes. The similarity resides in the smaller capital endowment bequeathed to future generations.

Just as Keynes saw speculation in a durable asset (money) as causing a rate of interest too high to sustain full employment, so this similar argument can be found in writers on land value taxation that speculation in another durable asset (land) could cause the unemployment or wasteful use of labor and capital. Both arguments rest on the relationship between uncertainty and the existence of durable assets, which do not naturally deteriorate. We may also note that Keynes's ([1936] 1964: Ch. 17, §3, Ch. 23, §6) suggestion of "stamped money" as a penalty for hoarding money is analogous to land value taxation as a penalty on the suboptimal use of land. In this sense, then, the argument emerges that land value taxation corrects a tendency towards market failure—a failure to rigorously optimize in the present due to hopes of cornering the future.

Keynes himself seems to have seen interest as a rent (Ellickson 1966: 153–156), but hoarding money is not precisely equivalent to holding land for speculative gain. If money appreciates over time in terms of its purchasing power, the nominal rate of interest on loans should drop to offset this advantage and the person who wishes to borrow money will be unharmed by its "hoardability." In contrast, the same expectation about increasing land values does not result in a lower rent being charged to the land user but rather in a higher capitalized value being put on the land. Speculation in land and money markets do not therefore seem identical in all respects.

6.5. Choice of Investment Asset Life

One of the claims sometimes put forward in opposition to land value taxation is part of a general objection to ad valorem property taxation. Davenport (1917: 2–6) was among those who argued that such taxation penalizes long-lived assets such as standing timber and land ripening towards higher uses. The effects of ad valorem property taxation on forestry have been particularly controversial. Critics have concluded that a severance tax or income tax is preferable to the property tax because the former taxes do not arise until there is income with which to pay the tax.

Gaffney (1970–1971) has shown, however, that the reverse is true. Severance taxes and income taxes on realized income are biased in favor of long-lived assets. When the market value of an appreciating asset grows at compound interest and remains untaxed, it is as though income is received free of tax and ploughed back to earn more interest. That is why severance and income taxes encourage timber to be harvested on cycles that are too long from the standpoint of economic efficiency. The same principle applies to mining, fruit-growing, dam-building, and every other form of construction or long-term investment in fixed capital. The fundamental problem is that a tax imposed late in the life of a ripening resource causes capital to be tied up in long-term uses rather than being recycled into higher valued uses. Since each renewed use of capital (harvesting and replanting a forest; demolishing and rebuilding an old building) employs labor, the net effect of taxing realized income is to stifle demand for labor. That is why public works projects that gain political support by putting a few people to work are actually siphoning capital into long-term uses that prevent other jobs from being created.

Tax neutrality requires that appreciation and depreciation be taxed as they accrue, not later, when they are realized. Ad valorem property taxation has precisely that positive effect. It prevents the avoidance of taxation through deferral. Unlike the income tax and severance taxes, it does not interfere with the labor market.

If the critics of the general property tax were wrong about the effects on long-lived assets, their criticism of land value taxation was even further from the mark. Since land value taxation distorts choices

even less than property taxation, the former enjoys the advantage of intertemporal neutrality with respect to choice of rental streams.

6.6. Discovery of Natural Resources

Mining, it seems, is considered there [in Peru] in the same light as here, as a lottery, in which the prizes do not compensate the blanks, though the greatness of some tempts many adventurers to throw away their fortunes in such unprosperous projects. . . . The discovery of new mines, however, as the old ones come to be gradually exhausted, is a matter of the greatest uncertainty, and such as no human skill or industry can ensure.

—Adam Smith (BK I, Ch. 11, ¶78, 228)

If an occupation offers a few extremely high prizes, its attractiveness is increased out of all proportion to their aggregate value.

—Alfred Marshall (BK VI, Ch. 3, §6, ¶24)

One of the most intuitively appealing arguments against land value taxation is that it would discourage exploration for minerals. This argument rests on the idea that discovery is a form of production.

This idea crumbles on closer examination: the analogy is misleading. The fact is that discovery, as its etymology tells us, is the uncovering of what already exists rather than its production. History tells us also that it is often an accident, as was the case of Broken Hill (the world's largest silver-lead-zinc deposits), the Pilbara Iron Province, and the gold fields of California and Australia. Where discovery is not so accidental, the holders of mineral rights have been able to charge a true rent from prospectors for the mere privilege of exploring (Hotelling 1931: 144; Gaffney 1967: xvii, 4, 234). Such a charge is naturally proportionate to the prospects of success.

The argument that minerals should be subject to the rule of “finders, keepers” has, as Adam Smith told us, a further problem: it may over-motivate exploration and misdirect it (Hotelling 1931: 144; Gaffney 1967: 319, 335–339, 383–399). Labor and capital are not free goods and exploration can be both overdone and badly done. The proper questions to ask are 1) What is the optimal time to explore a given tract? and 2) Is ad valorem land value taxation neutral with respect to this optimum? (Throughout the subsequent discussion, we

should make clear that all exploration expenses, regardless of success, should be deductible against income tax to preserve neutrality.)

It turns out that the optimal time “to begin prospecting lands with suspected resources is when their leasable value stops rising faster than the interest rate” (Gaffney 1967: 365, 381–391). Discovery, like extraction, is an exhaustible economic opportunity, and, by deferring exploration till this time, the surplus of social discovery value over discovery cost is maximized. Premature exploration involves the waste of interest on advance exploration outlays, while later exploration involves the holding of an asset appreciating at a rate less than that which could be got by converting it to humanly-made capital.

Ad valorem taxation applied to mineral leaseholds will not alter this optimal timing, thanks to the operation of tax capitalization. This is the intertemporal neutrality of land value taxation discussed in the previous section (Gaffney 1970–1971: Pt. 4, 414–416). Before the optimal time, the appreciation of the after-tax value of the leasehold is still greater than the rate of interest. After that time, it is less than the interest rate.

Land value taxation, before and after discovery, forces exploration and forces it where it is most likely to be successful. Pre-discovery taxation motivates landowners to lease their mineral rights, or prospect themselves, to the end of either confirming the prospect and working it or of dispelling the illusion and being rewarded with a reduced tax assessment (Gaffney 1967: 373–375; H. G. Brown 1953: 302). If it seems harsh that taxes are sometimes paid prospectively on values exceeding what the minerals are ultimately worth, that is simply part of the risk. The risk-averse owner could have sold out before exploration. Moreover, all exploration expenses, regardless of success, should be deductible against income tax to preserve neutrality.

The knowledge that a discovery will subsequently be subject to ad valorem taxation means that prospectors will not be so strongly motivated to “work in the dark” on marginal lands (Gaffney 1967: 403). Otherwise, if the change in value were to be allowed free of tax, it might be more profitable, *ex ante*, to explore poorer rather than richer prospects.

The levying of land value taxation on mineral lands before and after exploration seems to be similar to a sensitive lease-bonus-plus-royalty package, without the disadvantage that royalties may have of causing abandonment of marginal discoveries.⁴³ Apparently, there have been cases where drilling revealed oil, but the previously contracted royalty charge was so high that production was not worth undertaking (Peterson and Fisher 1977: 698).

6.7. Depletion of Natural Resources

One of the earliest objections to land value taxation, oft made and still to be heard, is that a recurrent ad valorem charge on the value in situ of depletable resources would create a bias toward depletion. Walker (1893: 213–214) appears to have been the first to make this argument. Others followed. Miners would “mine out from under the tax” and farmers would not conserve the soil (Carver 1915: 286–287; Ely 1922: 248, 281; Van Sickle 1927: 98–99). As discussed earlier, economic land had to be permanent and indestructible, if a tax on rent was to be unshiftable (Davenport 1917: 13) .

The conclusion was drawn that some nature-given assets were really capital and should be exempt from taxation if depletion was to be avoided (Jensen 1931: 62). Even some advocates of land value taxation such as J. R. Commons (1922: 49, 56, 60) and H. G. Brown ([1924c] 1979: 221–222; 1928b: 391) accepted the view that natural, preexisting soil fertility should be exempt from land value taxation on the same basis as artificial or improved fertility. Brown ([1924c] 1979: 221–222) did not, however, accept the argument that exemption from land value taxation should be extended to mines because he argued that while the purpose of exemption was to encourage maintenance of soil fertility, in the case of a mine, exemption would serve no purpose since the ore would never be replaced in any case.

With regard to soil conservation, proponents of land value taxation advanced several rebuttals (Hirsch 1901: 448–451; Cord 1965, 46–47; [1979b] 2003: 241–242).

First, soil depletion had occurred historically under unencumbered private ownership: to that extent, soil depletion was hardly a problem unique to land value taxation.

Second, when land is abundant, it may be economically efficient to exhaust soil fertility rather than conserve it.

Third, agricultural tenancy is an important cause of soil depletion since the tenant on a short lease has no interest in preserving his landlord's asset—the soil. As discussed earlier, land value taxation would lower land prices and promote owner-occupation. This would remove the incentive to depletion given by absentee farm ownership.

Fourth, under land value taxation, improvements both on and in the soil would be exempt from taxation, hence one would expect more capital to be expended in agriculture. Would a farmer then be so foolish as to utterly exhaust his soil so that all his fixed capital was rendered worthless?

Fifth, since land value assessments would be based on highest and best use, a farmer who did not fertilize the soil, when it was necessary to do so, would still be taxed on that achievable fertility so that the tax would create a pressure towards spending on (untaxed) capital to maintain fertility.

Some of these rebuttals are obviously valid considerations, but the fact is that the critics did have a valid point. Ad valorem taxation of an exhaustible resource operates like an increase in the interest rate to bias extraction towards the present and away from the social optimum at which the present value of the resource is maximized (Gray 1914: 486; Hotelling 1931: 164; Ciriacy-Wantrup 1944: 177–182).

This argument can be seen from a simple example. Suppose we own a ton of ore in the ground of value, V , equal to \$100, net of extraction costs. If the interest rate, i , is 10 percent, we will be on the margin of indifference between leaving it in the ground and extracting it if the ore will annually appreciate at 10 percent. In other words, we choose a time pattern of extraction that maximizes the present value of the resource.

Now suppose a recurrent ad valorem tax, t , of 5 percent is levied on the value of the ore in situ. If we leave it in the ground forever as before, tax capitalization theory tells us that V' , the value after land value taxation is imposed, will be given by

$$\begin{aligned}
 V' &= \frac{i}{i+t} V \\
 &= \frac{10}{10+5} \times 100 \\
 &= \$66 \frac{2}{3}
 \end{aligned}$$

So V' (the value in the ground after land value taxation is imposed) is less than V^* (the sale proceeds of the ore, if extracted), which remains \$100, as before. Hence the imposition of ad valorem taxation does bias towards prematurely suboptimal extraction. Or, to look at it another way, the option of extraction prevents tax capitalization from becoming effective.

Obviously, no state will be happy with a tax that may tend to diminish the value of its revenues, but there are ways in which a property tax can be levied on minerals without this effect. One possibility is to levy a lump-sum tax on the initial market value of newly developed mines: such a tax would represent a once-for-all commutation of future recurrent ad valorem levies and could be paid off as a variable annuity over the life of the mine (McDonald 1965: 327). It is as though the state fixed a liability of \$33.33 in our example above and let the taxpayer pay it off on some installment plan. There is, however, the problem with this approach that, in the case of long-lived mines, the state would lose out on the benefit of any revaluations of the mine during its life. For example, such a tax levied on the value of the gold mines in 1900 would seem small compared to their value now. Alternatively, if prices fell, the mine might be abandoned with taxes unpaid.

A more promising suggestion is to adopt the commutation principle at the margin; that is, to levy a depletion charge as well as the recurrent ad valorem tax. The depletion charge can be set so as to perfectly offset the bias towards depletion (Gaffney 1967: 371–372).

Depletion represents the change in value of a natural resource due to use (Hotelling 1931: 170). It is an endogenous depreciation cost determined by the time path chosen for realizing the rent surplus of an exhaustible natural resource (Peterson and Fisher 1977: 692; Gray 1914: 484, 488–489). It “constitutes sale of the substance of the resource, and the corresponding payment is not income but a transfer,

the liquidation or amortization of a fund, comparable to sale of title to part of the land itself" (Gaffney 1965: 540).

To see how a tax, T , on depletion can be chosen to restore neutrality, we observe that T must be so chosen that

$$V' = V'^e$$

that is, so that the value in situ after the land value tax has been capitalized is equal to the value to be realized by extraction, after allowing for the depletion tax.

Now from $V' = V'^e$ it follows that $V' = V - TV'$ hence

$$\frac{i}{i+t} V = V - \frac{TiV}{i+t}$$

$$i = i + t - Ti$$

$iT = t$ for neutrality (Burt and Cummings 1977: 18)

Returning to our previous example, we had $i = 10$ percent, $t = 5$ percent, and $V' = \$66 \frac{2}{3}$. If $T = t/i = 50$ percent, then the after-tax proceeds from extraction are

$$V'^e = \$100 - \left(50\% \times \$66 \frac{2}{3} \right) = \$66 \frac{2}{3}$$

It can be seen that no other price is consistent with equilibrium.

Another way of looking at the matter is to think of it as a question of preserving the sovereign's equity, U , in the resource where

$$U = \frac{t}{i+t} V = V - V'$$

The state earns interest, i , on the value of its property, U , when the ad valorem tax, t , is capitalized. When depletion occurs, this value, U , is lost to the state so a depletion charge, T , must be levied in commutation; i.e., $TV' = U$

$$T = \frac{t}{i+t} \frac{V}{V'} = \frac{t}{i+t} \frac{i+t}{i} = \frac{t}{i}$$

$iT = t$ as before.

This way of looking at it brings out the point that the depletion charge is a capital account payment to the state to compensate for a

wasting asset, whereas the proceeds from the ad valorem property tax are current account income, which can be spent without damaging future revenues (Hotelling 1931: 170–171).

Upon reflection, it will be seen that the depletion charge is an analogue of assessment in highest and best use for urban sites. We saw earlier how reassessment in highest and best use operated as a penalty to deter landholders from prematurely developing land. Just as improvements are deducted from market value to get taxable unimproved value, so damage to the land should be added back to get the taxable value. In the case of urban land, this is done by assessment on highest and best use, which refuses to reduce the assessment on account of under-use of land; in the case of an exhaustible resource, the depletion charge is a commutation of what would have had to be paid if the damage had been added back. The depletion charge is really nothing more than a landlord's penalty against a tenant for damage to the value of property not returned in its original condition. [Editor's note: In this case, the state functions as the landlord, and the mine operator functions as the tenant. The depletion charge requires the mine operator to restore the value that was taken from society, thereby keeping the value of the public asset intact.]

The basis of tax neutrality is non-contingency. Land value taxation is neutral not because it is a fixed tax (it is not); it is neutral because assessment aims at valuing the resource without regard to what the individual landholder does, for good or for ill. Putting up a fine building will not raise the assessment nor will using prime building land as a parking lot lower the assessment. Land values should be reassessed on exogenous criteria, not for endogenous causes. Since depletion is an endogenous landowner decision, the mine assessment should only be lowered after a depletion charge has been levied in lieu of an unaltered assessment. Properly interpreted, therefore, land value taxation is neutral with respect to the optimal use over time of natural resources.

Finally, as a practical matter, since large investments in fixed capital are required to extract depletable resources, tax capitalization may be largely effective and depletion of small account. This is because, if extraction is constrained by capital requirements to take place *seriatim*, the loss of value is the present discounted value of the last units

of ore in the series (Gaffney 1965: 555–557; 1967: 355–356, 369–370). Further, in the case of soil depletion, the fact that capital spending on fertility would be exempt as improvements might well compensate in any case for depletion of initial fertility.

6.8. Taxing Rental Values vs. Land Value Taxation

One argument sometimes put forward against land value taxation is that it is not the same as a tax upon rent. It is argued that ad valorem land taxation amounts “to an attempt to enjoy two taxes where only one can possibly be equitable,” and that the “taxation of a present worth in the absence of a present income, or any taxation disproportionate to present income, is an affront to the fundamental principle of taxation” that “current revenue is the only proper object of current taxation” (Davenport 1917: 4; Edgeworth 1906: 76). The implication of this argument is that ad valorem taxation could drive appreciating land out of use with a low current rental income (Jenkin 1872: 630).

We have already discussed variants of this argument in regard to land speculation and the depletion of resources, and we have indicated elsewhere the basis of a short general answer:

- (1) Land that has a low rental value in relation to capitalized value must be appreciating so that rent plus capital gains equals the rate of interest applied to initial capitalized value.
- (2) Capital gains are income.
- (3) Therefore, ad valorem taxation *is* proportional to current income (Heilbrun 1966: 123–127; Gaffney 1970: 182–184). Since ad valorem property taxation represents a proportionate tax on an accrual basis of current income, Pigou’s (1947: 135–136) objection to possible unequal impact on present values of assets seems misplaced.

This answer will satisfy advocates of the Haig-Simons definition of income, which includes unrealized capital gains as current income, but critics object to treating capital gains as income. Whatever the validity of this objection in regard to income taxation, it seems no objection against ad valorem land taxation.

If we regard a capital gain in the case of land as a change in its value, then it is apparent that there are three possible causes for such a change (Plehn 1918: 490, 492, 495):

- (1) Accruals. As time passes, future higher rents may approach closer to the present. Irving Fisher denied that such accruals constitute income (Fisher 1930: 25–26, or Pt. I, Ch. I, ¶65). It would seem, however, more sensible to note that one can tax the income stream either on an accrual basis or on a receipts basis without double taxation. An income tax that taxes these “capital gains” and the receipts themselves is guilty of double taxation, but ad valorem land taxation is not guilty. Contrary to what H. J. Davenport wrote, the ad valorem tax is simply rental income taxation on an accrual basis (Gaffney 1970–1971: Pt. 4, 411–417).
- (2) Unanticipated changes in the expected rents. These are true capital gains and if it were known that the rents would be taxed as received, then such capital gains are already implicitly taxed. However, since the ad valorem land tax does not tax the income receipts as such, the inclusion of such gains in the tax base does not amount to double taxation but, as before, simply represents the taxation of land income on an accrual basis.
- (3) Changes in the rate of interest. Capital gains from this cause have been a contentious issue in the Haig-Simons definition of income (Whalley 1979: 87–91). In the case of land value taxation, a fall in the rate of interest results in a higher proportion of rental income being taken as tax. This follows from the static formula for tax capitalization ($V = R/(i + t)$), or post-tax value equals rent divided by the sum of the interest and tax rates. To a pure single-taxer, rather than being a problem of land value taxation, this would be cause for rejoicing. For those who prefer to maintain a constant level of tax revenue, the simple solution would be to adjust the tax rate, which is the procedure adopted by municipalities in Australia when revaluations are made. In any case, the higher the tax rate on land, the less important this effect would be, since the percentage of rent taken in tax is given by $t/(i + t)$, where t is the tax rate and i is the rate of interest.

If, however, one were to tax land on a rental basis, this must be done on the basis of potential rent, not actual rent, if the tax is to be neutral (Van Sickle 1927: 103; H. G. Brown 1928a: 164–165; Skouras 1977: 199). In practice, potential rent will be ascertained by applying a rate of interest to market value (Fox 1908: 50–51; Lord Douglas of Barloch 1961: 46–47). Taxation of land on a rental basis would therefore appear to be of no advantage. Further, if, instead of taking a uniform rate of interest in this valuation process, different rates were used for different types of property, the result would be to exempt from taxation accruals of future income. Indeed, it is hard to see how such a valuation system would not degenerate into the taxation of actual, rather than potential, rents. In conclusion, therefore, the taxation of capitalized values would appear to be easier in practice than the taxation of rental values (Evans 1930: 686; Skouras 1977: 198–199).

6.9. Capital Formation

We say we want capital, but if any one accumulate it we charge him for it as though we were giving him a privilege.

—Henry George (1879: BK IX, Ch. 1, ¶4)

The effect of land value taxation on capital formation may be dealt with under two heads, both ultimately traceable to Ricardo—(1) its effects upon the ability and incentive to accumulate and (2) its effects upon portfolios.

The Ability and Incentive to Accumulate

Ricardo, who did so much to elucidate the proposition that a tax upon rent cannot be shifted, in fact opposed the special taxation of land rent (Kittrell 1957: 379–390). Three of his arguments bear on capital formation:

- (1) All taxes impede capital formation (Ricardo Ch. VIII, ¶8). “Every new tax becomes a new charge on production” (Ch. XII, ¶7). Thus, Ricardo says (Ch. XVI, ¶33), we ought to follow “the golden maxim of M. Say, ‘that the very best of all plans of finance is to spend little, and the best of all taxes is that which is the least in amount.’”

- (2) Equity in taxation consists of making each taxpayer contribute his "fair proportion of the expenses of the country . . . according to his means" (Ricardo Ch. IX, ¶29–31). To subject land rent to unequal taxation "would be an infringement of that principle which should ever be held sacred, the security of property" (Ch. XIV, ¶6). Without secure property rights and a respect for legitimate expectations of continued enjoyment of legally acquired property, capital accumulation could not be expected to continue. This is a utilitarian argument for equal treatment of all established property rights, not a natural law argument (Kittrell 1957: 380–383; Hollander 1979: 591–593). It is reflected in James Mill's (Ch. IV, § 5, 250–254) desire to tax only the unearned, unforeseeable, increment. Alfred Marshall (App. G, §9, ¶28) was similarly concerned that "a sudden appropriation by the state of any incomes from property, the private ownership of which had once been recognized by it, would destroy security" and "would be unbusiness-like and even foolish." According to the logic of this position, the abolition of slavery in the 19th century was also "unbusiness-like and even foolish."
- (3) In practice, it may be difficult to assess land rent for taxation separately from quasi-rent on capital invested by the landlord, in which case, agricultural improvements would be discouraged (Ricardo Ch. X, ¶2; McCulloch 1863: 42–44).

The answers to these arguments are not far to seek; as for the first, that all taxes impede capital formation, Ricardo himself seems to have provided a counterargument in that he seems to assume the propensity to save out of profits is higher than out of rents (Hollander 1979: 324–325). In that case, we should least injure accumulation by taxing rents rather than profits.

In any case, as H. G. Brown ([1924c] 1979: 262–265) pointed out, all taxes have income effects and in that sense, they all diminish accumulation indifferently. However, even this might not be so given that the funds raised by the state may be used to protect property rights and other preconditions for a market system. Even Ricardo had to concede some legitimate functions for the state, though he favored a uniform, equal tax as least distortive (Hollander 1979: 542–544). The

really significant fact, according to Brown ([1924c] 1979: 265), is that land value taxation does not drive a wedge between pre- and post-tax returns to savers; unlike other taxes, it is neutral with respect to relative prices, including interest rates.

As for the second argument, on the necessity to respect established property rights, this is a question of investor psychology rather than equity. Strictly interpreted it would have forbidden repeal of the Corn Laws, the abolition of chattel slavery, the abolition of depletion allowances in the U.S. income tax, or, for that matter, any policy change ever injurious to an established expectation. A more philosophical objection to Ricardo's argument can be based on the utilitarian justification for private property itself—that it is expedient if it rewards productive activity, but not otherwise. As John Stuart Mill (BK II, Ch. 2, §6, ¶26) remarked:

When the "sacredness of property" is talked of, it should always be remembered, that any such sacredness does not belong in the same degree to landed property. No man made the land. It is the original inheritance of the whole species. Its appropriation is wholly a question of general expediency. When private property in land is not expedient, it is unjust. It is no hardship to any one, to be excluded from what others have produced: they were not bound to produce it for his use, and he loses nothing by not sharing in what otherwise would not have existed at all. But it is some hardship to born into the world and to find all nature's gifts previously engrossed.

Henry George (1879: BK VIII, Ch. 1, ¶6, 9; 1883: Ch. 19, ¶10–13) pressed the argument against the expediency of untaxed property in land further:

It is not the magic of property, as Arthur Young said, that has turned Flemish sands into fruitful fields. It is the magic of security to labor. . . . The complete recognition of common rights to land need in no way interfere with the complete recognition of individual rights to improvements. . . . So far from the recognition of private property in land being necessary to the proper use of land the contrary is the case. Treating land as private property stands in the way of its proper use. Were land treated as public property it would be used and improved as soon as there was need for its use or improvement, but being treated as private property, the individual owner is permitted to prevent others from using or improving what he cannot or will not use or improve himself.

George (1883: Ch. 9, ¶15; 1890b: 86) argued that the taxation of land values in order to remove taxes from capital and labor would in fact strengthen the security of legitimate property rights:

This, and this alone, I contend for—that he who makes should have; that he who saves should enjoy. . . . Instead of weakening and confusing the idea of property, I would surround it with stronger sanctions. Instead of lessening the incentive to the production of wealth, I would make it more powerful by making the reward more certain.

Thus even from a utilitarian viewpoint all property rights could hardly be deemed equally “sacred” and George was surely right in pointing out that even the “equal” taxation of capital was incompatible with security of property rights in capital itself.

Ricardo’s argument against rent taxation from the sanctity of property is therefore hardly convincing: interpreted as a dogma it would veto any social change prejudicial to vested interests; interpreted as political advice it simply amounts to a plea for gradual change. Most would agree with the principle of gradual change. George (1890b: 78) recognized that the adoption of land value taxation would be preceded by a political discussion that would give advance warning to landholders. Ultimately, as a utilitarian argument, it must give way to other utilitarian arguments for change based on the merits of the change itself.

I do not think it would be fair to Ricardo to leave this point without venturing some speculation on the reasons for his espousal of this obviously weak argument. Ricardo had a horror of class legislation. I suspect that J. R. McCulloch (1863: 17, 143–145, 167–168) opposed progressive taxation for much the same reason, as one can see from this impassioned plea: “The moment you abandon . . . the cardinal principle of exacting from all individuals the same proportion of their income or property, you are at sea without rudder or compass, and there is no amount of injustice or folly you may not commit.” I suspect he feared the legislative effects of the malice and envy inherent in most human beings and in this he was more of a Burkean conservative than a utilitarian radical.

It is unfortunate that Ricardo’s and McCulloch’s distrust of democratic government has all too often been justified but it is pertinent to point out that, in asserting that government should not seek to alter

the relative distribution of wealth, they implicitly assumed that the status quo ante was a just one. Henry George (1890b: 86) shared their concerns about the injustices of class legislation but argued for land value taxation precisely on the grounds that the existing distribution of wealth was unjust because it denied equality of opportunity:

We propose to respect to the full the rights of property. We propose to assure to each man his own, be it much or little . . . We care not how rich any man may become, so long as he does not appropriate what belongs to others. We ask no class legislation, no favors or doles for any set of men. We would do away with all special privileges, abolish all monopolies, and put all men on the same level with regard to natural opportunities and before the law.

In sum, the argument that land value taxation would discourage capital formation by destroying the “security of property” simply amounts to an acceptance, as just, of the private ownership of all factor endowments. At the same time, it reflects an unwillingness to defend the “sanctity” of capital or labor against taxation—as long as the state seeks to impoverish all equally.

As for the third objection, that difficulties of assessment and the resulting taxation of quasi-rents would deter agricultural capital formation, Ricardo (Ch. X, ¶3) himself may not have strongly believed it (Carl Shoup 1960: 82, n. 13). McCulloch (1863: 44–46) certainly believed it, however. The answer in any case is obvious. As George (1879: BK VIII, Ch. 4, ¶9) explained:

For admitting that it is impossible invariably to separate the value of land from the value of improvements, is this necessity of continuing to tax *some* improvements any reason why we should continue to tax *all* improvements? If it discourage production to tax values which labor and capital have intimately combined with that of land, how much greater discouragement is involved in taxing not only these, but all the clearly distinguishable values which labor and capital create? (emphasis in original)

George (BK VIII, Ch. 4, ¶10) then rebuts the hypothesis that the value of land cannot be separated from the value of improvements.

In the oldest country in the world no difficulty whatever can attend the separation, if all that be attempted is to separate the value of the clearly distinguishable improvements, made within a moderate period, from the value of the land, should they be destroyed. This, manifestly, is all that justice or policy requires. Absolute accuracy is impossible in any system,

and to attempt to separate all that the human race has done from what nature originally provided would be as absurd as impracticable. A swamp drained or a hill terraced by the Romans constitutes now as much a part of the natural advantages of the British Isles as though the work had been done by earthquake or glacier. The fact that after a certain lapse of time the value of such permanent improvements would be considered as having lapsed into that of the land, and would be taxed accordingly, could have no deterrent effect on such improvements, for such works are frequently undertaken upon leases for years.

Both Adam Smith and Böhm-Bawerk argued the same position in defining rent and land. In more recent times in Australia, this passage was quoted to the 1967 New South Wales Royal Commission on Local Government Finance and Valuation by R. Inglis, a prominent property assessor (Hutchinson 1979: 4). In Australia, "site value" is now defined to include invisible improvements undertaken more than 15 years prior to the assessment.

The arguments that land value taxation would peculiarly impede capital formation do not really pass scrutiny. Indeed, the reverse may be closer to the truth. Not only does land value taxation leave unimpaired the rewards of saving and accumulation; it would stimulate them by reducing the availability of land as a substitute for capital in portfolios.

Land Value Taxation, Portfolios, and Capital Formation

Land, public debts, social security plans, capitalized monopoly privileges, and money all share two characteristics. First, as far as the individual is concerned, they represent "wealth" as much as does real capital. Second, as links between the present and the future, they have intergenerational repercussions. The argument that private landownership can be a substitute for real capital formation is therefore closely linked with arguments about the role of money in growth models and arguments about the effect of public debts and "fiscal illusion" on capital formation.

The question of whether public debt is perceived by households as net wealth has attracted renewed interest. R. J. Barro (1974) has argued that public debt will have no effect on capital formation because the current generation will increase its planned capital

bequests to the succeeding generation to compensate for taxes on them necessary to pay interest on the debt.

Ricardo, however, considered the argument Barro would later make and rejected it. From this emerged the Ricardian Nonequivalence Theorem (O'Driscoll 1977: 207–210; C. Shoup 1960: 149–157). Ricardo (Ch. XVII, ¶4–7) contended that taxpayers would have imperfect foresight and think themselves richer than they in point of fact were. Another reason for doubting Barro's argument is that bequests may be unplanned and simply due to the fact that people cannot wisely consume their capital when they do not know when they will die.

Henry George perhaps gave the best reason why public debts would be perceived as net wealth by their owners: their posterity may not have to pay any taxes to service the interest. Barro (1974: 1098) ignored this by assuming all people are affected identically by the tax system. In George's analysis, the landholders of England had thrown off the feudal dues onto the excise. George (1883: Ch. XVI, ¶6) argues that, in like manner, the taxes to service the debt might be indirect taxes largely paid by a class other than the holders of the debt:

Public debts are not a device for borrowing from the future. . . . That is, of course, a physical impossibility. They are merely a device for obtaining control of wealth in the present by promising that a certain distribution of wealth in the future shall be made—a device by which the owners of existing wealth are induced to give it up under promise, not merely that other people shall be taxed to pay them, but that other people's children shall be taxed for the benefit of their children or the children of their assigns.

There does therefore seem to be every reason to accept the “Ricardian Nonequivalence Theorem” that debt finance is not equivalent to tax finance and that, as a corollary, “fiscal illusion” could lead to reduced capital formation.

A similar line of argument was pursued by Henry George in his critique of J. S. Mill's contention that the laws of distribution were human laws independent of the laws of production. George (1883: Ch. XVI, ¶1–14; 1879: BK III, Ch. 4; 1898: BK II, Ch. 14, 15, 17, BK III, Ch. 17, BK IV, Ch. 2) contrasted the idea of “value from obligation” with “value from production” (roughly “income transfers” as opposed to “value added”). When the law creates property rights in objects such

as slaves, land, or public debts that reassign income without increasing production, George saw that these property rights could check production and/or capital formation. Either source of value was equally acceptable to the individual: production by slaves or rent collected from tenants could be spent or invested as easily as money earned from labor or from investment in productive machinery. But thinking that increases in the value of slaves, land, and public debts amounted to capital formation for society as a whole constituted a fallacy of composition.

It is not surprising therefore that both Carver (1915: 301–303) and Davenport (1917: 14) argued that one of the effects of land value taxation would be to reduce the amount of savings and investment talent devoted to seeking capital gains in land and increase real capital formation instead.

Not much attention was, however, paid by economists to this argument and it is from Keynes that it has reemerged. Keynes ([1936] 1964: Ch. 17, §5, ¶7) remarked: “That the world after several millennia of steady individual saving, is so poor as it is in accumulated capital assets, is to be explained, in my opinion, neither by the improvident propensities of mankind, nor even by the destruction of war, but by the high liquidity premiums formerly attaching to the ownership of land and now attaching to money.”

These “high liquidity premiums” are due to the fact that land may appreciate as well as render a current yield and one does not have to accept Keynes’s monetary theory of interest to agree that capital gains in land can satisfy savings desires.

It is significant that Keynes was familiar with Silvio Gesell’s work, which included advocacy of land nationalization, and was a supporter of the British Liberal Party, which attempted on several occasions to tax land values. However, Keynes remarked ([1925] 1931: 325) that “the Land Question . . . in its traditional form, has now become, by reason of a silent change in the facts, of very slight political importance.” It is not clear what facts he is referring to—A fall in the value of landed estates after World War I or a spread of British land ownership or Irish self-government? These facts were economically irrelevant, though they may have reduced political interest in the “land question.”

A more formal analysis of the role land price appreciation may play in discouraging capital formation was given by D. A. Nichols (1970), in a growth model similar to those with outside money or public debt. Nichols's paper is discussed by Skouras (1977: 43–46), who also discusses several other models, but the general conclusion is unaltered: capital formation will be promoted by land value taxation. Indeed, this is the major thesis of Skouras's book. Nichols argued that private investment in land lowers capital formation. The basic mechanism is that increased capital formation raises the rent of land and lowers the rate of return on capital. But these two effects result in an increased value of land, which, since it satisfies savings motives, reduces the desire to accumulate further capital.

The policy conclusion proposed by Nichols (1970: 336–337) is obvious:

Attempts to increase rates of capital accumulation in countries with large quantities of rents are more likely to be successful if rents are taxed than otherwise. Taxing rents should lower the price of land and therefore the amount of capital gains on land which result from economic growth. To satisfy the same savings motives as before the tax was imposed will require an increase in the rate of capital accumulation.

Martin S. Feldstein (1977) has observed a further corollary of the taxation of land rent in relation to capital formation. Since the tax forces individuals to satisfy their life-cycle savings desires by replacing land values with capital in their portfolios, the marginal productivity of land will be raised, and at the same time the rate of interest at which net rents are capitalized will fall. The corollary is that the market (net of tax) value of land will not drop by the full amount indicated by tax capitalization formulae and may, in rare cases, rise. Henry George (1879: BK IX, Ch. 2, ¶8, Ch. 3, ¶1–5) had also expected his single tax to raise wages and net interest, and used this as an argument against compensating landlords. Feldstein (1977: 357) further notes that the tax is still without excess burden since the

effect of the tax is simply to change initial endowments. The alteration in the capital stock is a response to this different endowment and does not involve any distortion in capital supply per se. There is no wedge between the marginal product of capital and the return to savers.⁴⁴

The general conclusion about land value taxation and capital formation would appear to be that, if there is imperfect foresight and there is no uniform bequest motive among members of society towards their heirs, then the introduction of land value taxation will per se, regardless of differential incidence, result in increased capital formation.

This is an interesting result but one that is intuitively comprehensible when the relative price increases of land as opposed to the stock exchange indices for shares or bonds are studied for most Western countries since World War II. Paradoxically, Keynesian economic policies with their emphasis on low interest rates seem to have entrenched the *rentier* in the land market even as his fellow in the bond market has been subjected to inflationary euthanasia.⁴⁵

Chapter 7

Equity Arguments About Land Value Taxation

In this penultimate chapter, we focus on the ethical questions surrounding land value taxation. We ask whether it can be justified in terms of various philosophical traditions: utilitarianism and various forms of rights-based arguments. Finally, based on those principles, we ask whether landowners should be compensated in the event of a transition from the present tax system to one dominated by a land value tax.

7.1. Equity Arguments and Philosophical Assumptions

The most commonly used argument against special land value taxation is that it would be inequitable. It is curious that this argument should be employed so often by economists since it is not an economic argument but rather an ethical one. This fact does not, however, mean that because this claim is a value judgment we can simply dismiss it; on the contrary, like any ethical argument, it can and should be tested for its logical consistency with its implicit assumptions.

Now what can the claim that a tax is inequitable mean? It can only mean either that the tax is unjust or, even if the tax is not unjust, it is "unfair." The second meaning seems to be sometimes meant, but it is obviously a contradiction in terms. We are thus left with the result that those who claim a land value tax is inequitable are really asserting that it is unjust. Since injustice means the violation of a right and since taxation is the act of taking property without compensation, then it emerges that all claims to the effect that land value taxation is inequitable are simply assertions that property rights are being violated.

However, before one can claim that property rights are violated, one must have a philosophical theory of property rights and, in particular, a theory of property rights to land. Theories of property either assert that property is a conventional right (created by the state) or a natural right. This is the major distinction drawn in Schlatter ([1951] 1973), who shows how often theories of property have failed

to clearly differentiate between these two mutually inconsistent positions, namely, that property is conventional or natural.

Those philosophies that assert that all property rights are conventional must obviously allow the state an unlimited power of taxation. Since property rights are the ongoing gift of Caesar, the subject cannot plead injustice when Caesar terminates his bounty. Conventional theories of property cannot therefore be held by an opponent of land value taxation; instead, he must argue that property rights are anterior to the state.

Among the philosophies of conventional property rights, we must include:

- (1) utilitarianism
- (2) social Darwinism
- (3) legal positivism

No criticism of the "equity" of land value taxation on the basis of these philosophies is logically valid. An adherent of these philosophies may argue in terms of the expediency or survival value of state action, but no critic of land value taxation may employ the concept of an "unjust law."

The "equity" of land value taxation can only be argued on the basis of natural rights anterior to the state. Such rights may be deduced from the theories of:

- (4) natural law
- (5) social contract

The real ethical arguments about the justice of land value taxation or, for that matter, of any taxation have been based on conflicting views about natural law and natural rights. With the social contract approach I will not be much concerned, but one may note that the doctrine of equal rights to land of all people, over all generations, could be easily argued from John Rawls's (1971: 11–22, 120, 136–142, 167–168) starting point of an original position in which disembodied souls make the contract behind a veil of ignorance.

I will not be much concerned with Rawlsian theory for three reasons. (1) Although the original position is supposed to be a hypothetical situation, it seems to be an impossible condition. For

example, how can disembodied souls make decisions without intellects when the distribution of intelligence is one of the things they are supposed to be making a contract about? (2) It is one thing to argue obedience is owed to a natural law imposed by a Creator. It seems much harder to argue that we ought to be bound by a contract to which we never consented. That seems to fly in the face of normal concepts of justice. (Adam Smith apparently was skeptical of contract theory for this reason.) (3) Even if we were to accept the theory, any idea of equal opportunity derived from it would seem to imply equal rights to use of the Earth, or compensation for unequal use. Hence the discussion would not be any different for our purposes.

In the following pages, I shall briefly set out the arguments for the justice of land value taxation in both positive and natural law followed by the most common objections to these arguments, with corresponding rebuttals. Since nothing set out below will be original, the plan is to let the authors speak to the reader as directly as possible.

7.2. Positive Law Justifications

No absolute ownership of land is recognized by our law books except in the Crown. All lands are supposed to be held, immediately, or mediately, of the Crown, though no rent or services may be payable, and no grant from the Crown on record.

—Sir Frederick Pollock (1887: 12)

If land value taxation is to be condemned as an unjust taking of property, then its critics must show that land has become private property through the operation of either positive or natural law. Conversely, advocates of land value taxation must demonstrate the state's right to appropriate land rents for the public benefit. Single-taxers cannot invoke the taxing power of the sovereign as a justification for land value taxation without contradicting their own general position that taxation *per se* is theft.⁴⁶ Conversely, legal positivists, who concede the taxing power of the state, have no juristic argument against land value taxation.

In terms of positive law, apart from the taxing power as a sovereign attribute, the advocates of land value taxation have put forward the following legal argument:

- (1) All land is ultimately owned by the Crown at law, in a way other property is not: indeed, "real estate" originally meant "royal estates." As Tucker (1953: 373–374) put it:

We talk glibly about landowners, but no one owns land absolutely outright. Pollock, the distinguished jurist, says, "It is commonly supposed that land belongs to its owners in the same way as money or a watch. This is not the theory of English law. No absolute ownership of land is recognized in our law books, except in the Crown." Blackstone sums it up tersely: "It is a received and undeniable principle of law that all lands in England are held immediately by the King," and Williams, in "Real Property," says, "The first thing the student has to get rid of is the idea of absolute ownership; such an idea is quite unknown in English law." In America, the Constitution of New York declares, "The people in their right of sovereignty are deemed to possess the original and ultimate property in and to all lands within the jurisdiction of the state."

- (2) Since a sovereign cannot bind himself, there is no lawful manner in which the Crown can alienate land and bind itself not to collect rents from those who hold under it. Thus, for example, the abolition of feudal tenures in 1660 cannot be interpreted in law as a binding pledge against future land levies.
- (3) Consequently, as Mill (1875: 264) recognized, land value taxation is not really taxation at all. It is not a violation of property rights established by positive law. On the contrary, it is a return of public property to be once again applied for the common benefit. As Henry George (1891: 41) put it, under the feudal system,

there was still a rough recognition of the principle of common rights in land. A fief was a trust, and to enjoyment was annexed some obligation. The sovereign, the representative of the whole people, was the only owner of land. Of him, immediately or mediately, held tenants, whose possession involved duties or payments, which, though rudely and imperfectly, embodied the idea that we would carry out in the single tax, of taking land values for public uses.⁴⁷

Thus, from the point of view of positive law, the advocates of land value taxation have been able to successfully claim that land has never become absolute private property under law. Consequently, arguments about the justice of land value taxation have typically appealed to a higher law.

7.3. Natural Law Justifications

That every man has a right to an equal share of the soil, in its original state, may be admitted to be a maxim of natural law. It is also a maxim of natural law, that everyone, by whose labor any portion of the soil has been rendered more fertile, has a right to the additional produce of the fertility, or to the value of it, and may transmit this right to other men.

—William Ogilvie ([1782] 1891: §9, p. 12)

There thus arises, anterior to human law, and deriving its validity from the law of God, a right of private ownership in things produced by labor—a right that the possessor may transfer, but of which to deprive him, without his will, is theft. This right of property, originating in the right of the individual to himself, is the only full and complete right of property. It attaches to things produced by labor, but cannot attach to things created by God.

—Henry George (1891: 2–3)

As the above quotes show, the ethical argument for the justice of the single tax on land values rests on two postulates: (1) the labor theory of property right and (2) the claim that all people, over all generations, have equal rights to the use of the earth.

It is in the coordination of these two principles that the single-tax advocates have found the justification of both private and public property. This, in turn, solves the problem of taxation, since the problem of taxation and the problem of property are seen as one and the same (Jaffe 1975: 813).

The Labor Theory of Property Right

The laws of property have never yet conformed to the principles on which the justification of private property rests.

—John Stuart Mill (BK II, Ch. 1, §3, ¶16)

The classical formulation of the right of property, given by John Locke, proceeds from the claim that all people are created free, that they are owners of themselves: consequently, whatever is made by humans comes into existence stamped with the claim of its maker to its ownership. As Locke ([1689] 1764: ¶27) put it:

Though the Earth, and all inferior Creatures be common to all men, yet every man has a *Property* in his own *Person*. This no Body has any Right to but himself. The *Labour* of his Body, and the *Work* of his Hands, we may

say, are properly his. Whatsoever then he removes out of the state that nature both provided, and left it in, he hath mixed his *Labour* with, and joyned to it something that is his own, and thereby makes it his *Property*. It being by him removed from the common state nature placed it in, hath by this *labour* something annexed to it, that excludes the common right of other men. For this *Labour* being the unquestionable Property of the Labourer, no man but he can have a right to what that is once joyned to, at least where there is enough, and as good left in common for others.

This labor theory of property right has had enormous influence. In particular, it was endorsed by Adam Smith (BK I, Ch. 10, ¶67), by the Ricardian Socialists (Menger 1899: lii, 42; Lowenthal 1911: 26, 49; Hodgskin 1832: 25–26), by John Stuart Mill (BK II, Ch. 1, §3, ¶11; Ch. 2, §1, ¶2), and by Henry George (1879: BK VII, Ch. 1, ¶4–5). It is not necessary for an upholder of this ethical judgment to also maintain the labor theory of value, although some authors, such as Schlatter ([1951] 1973: 182, 184, 278), often confuse the two. The labor theory of property right consistently maintains the right of a worker to sell what he or she has produced after it is made or even before it is made. That includes relinquishing any lien on the product by entering into a wage contract under which the worker's claim is satisfied by receiving the discounted value of the marginal product of labor (Böhm-Bawerk [1884] 1959: 263–271).

The real problem with Locke's labor theory of property right lies in the proviso to leave "enough, and as good" for others to appropriate. This Lockean proviso is the logical corollary to Locke's acceptance of the equal rights of all people to the earth.

Equal Rights to the Use of the Earth

The soil was given to the rich and poor in common. The pagans hold earth as property. They do blaspheme God.

—St. Ambrose (quoted in Neilson 1951: 273)

They wrongfully think they are innocent who claim for themselves the common gift of God.

—St. Gregory the Great (quoted in Neilson 1951: 273)

John Locke ([1689] 1764: ¶25) accepted the doctrine that the earth was given in common to all people as a corollary of Christian belief. Today, perhaps, a secular age would not place much reliance on

biblical arguments for ethical propositions and yet this democratic age would almost certainly concede the proposition, due to Locke ([1689] 1764: ¶4, 5), that all people are born free and equal.

To concede this is, however, as Herbert Spencer (1851: Chs. 9–10), Auguste and Leon Walras (Jaffe 1975: 812–814), and Henry George (1879: BK VII, Ch. 1, ¶14–17) realized, quite sufficient to allow the conclusion to be drawn that all people have equal rights to the use of the earth. For just as freedom implies the labor theory of property right, so equality under natural law implies equal rights to land. In later years, Spencer revised *Social Statics* and attempted to minimize the practical import of his arguments, though he never expressly repudiated his theoretical reasoning. Nevertheless, as a young man, Spencer wrote (1851: Ch. 9, ¶1):

Given a race of beings having like claims to pursue the objects of their desires; given a world adapted to the gratification of those desires—a world into which such beings are similarly born—and it unavoidably follows that they have equal rights to the use of this world. For if each of them “has freedom to do all that he wills, provided he infringes not the equal freedom of any other,” then each of them is free to use the earth for the satisfaction of his wants, provided he allows all others the same liberty. And conversely, it is manifest that no one, or part of them, may use the earth in such a way as to prevent the rest from similarly using it; seeing that to do this is to assume greater freedom than the rest, and consequently to break the law. Equity, therefore, does not permit property in land.

Spencer (1851: Ch. 9, §5) went on to point out that even a voluntary division of the land among the members of one generation could result in some members of later generations living on the earth at the sufferance of others. Smith (BK III, Ch. 2, ¶6) makes a similar observation, calling intergenerational control of land “the most absurd of all suppositions.” Henry George (1879: BK VII, Ch. 2, ¶1–6) later argued that there was little difference between owning people as slaves or owning the land on which they had to live, an idea also held by Spencer. Such a result would be a violation of the equal rights of everyone over all generations (Turgot [1788] 1973: 129–132; Mill 1875: 230, 280).

Equal rights to land could be asserted, Spencer wrote (1851: Ch. 9, §8, Ch. 10, §2, Ch. 25, §3), by the substitution of rental land tenure for unencumbered fee-simple tenure and the appropriation of the rents

by the state as the agent of the community. Under such a system of tenure, all people would be equally free to compete for the use of land and all would share equally in the benefit of the rent fund.

It is interesting to note that the idea of equal rights to the earth seems to have as venerable a history as the labor theory of property right; it is found in the writings of Stoics, of the Church Fathers, of Protestant theorists, of Grotius and Pufendorf, of agrarian reformers, of Ricardian Socialists, and of classical economists (Schlatter ([1951] 1973: 25–26, 36–37, 39, 52, 105, 127, 139, 146–149, 152–153, 174–175, 196–198, 209, 270–272). The significance of the single tax philosophy lies in its interpretation of this right in terms of the social appropriation of rent as the means of satisfying the Lockean proviso.

The Lockean Proviso

A rich man does not act unlawfully if he anticipates someone in taking possession of something which at first was common property, and gives others a share; but he sins if he excludes others indiscriminately from using it.

—St. Thomas Aquinas (Summa Theologica: II, ii, Q66, Art. 2)

We saw that Locke's justification of private property requires that "enough, and as good" be left in common for others. Locke ([1689] 1764: ¶33, 36, 43–45) himself did not emphasize this proviso and contented himself with arguing that land was abundant, had little value, and, in any case, had been parceled out by the common consent of earlier generations.

Herbert Spencer, as we have seen, noted the failure of these arguments to dispose of the proviso: land was scarce, did have a value, and no agreement by previous generations could deprive future human beings of their equal rights. Spencer (1851: Ch. 10, §1, ¶4) asked:

If there is not enough "left in common for others" how must the right of appropriation be exercised? Why, in such case, does the mixing of labor with the acquired object cease to "exclude the common right of other man?" Supposing enough to be attainable, but not all equally good by what rule must each man choose?

Spencer's (1851: Ch. 10, §2, ¶1) interpretation of the Lockean proviso followed naturally from his agreement with Locke that the

earth had been given to all men in common. The proviso would be satisfied by landholders renting their land from the community, who would thus be compensated equally for what they lost by one individual's appropriation.

Without any infraction of the law of equal freedom, an individual may lease from society a given surface of soil, by agreeing to pay in return a stated amount of the produce he obtains from that soil. We found that, in doing this, he does no more than what every other man is equally free with himself to do; that each has the same power with himself to become the tenant; and that the rent he pays accrues alike to all. Having thus hired a tract of land from his fellow man . . . having thus obtained, for a time, the exclusive use of that land by a definite agreement with its owners, it is manifest that an individual may, without any infringement of the rights of others, appropriate to himself that portion of produce which remains after he has paid to mankind the promised rent.

The advocates of the single tax on land values have thus grounded their case squarely on the Lockean theory of private property and the proviso that goes with it. The social appropriation of rent is justified on the grounds that a freely determined market rent measures the value of what an individual is appropriating from the common. Andelson (1971: 108) and de Fremery (1979) continue this discussion of the Lockean proviso in support of taxes on land values.

Taxation According to Benefit

Every species of taxation in every mode is in theory and principle based upon an idea of compensation, benefit or advantage to the person or property taxed. . . . Taxation, not based upon any idea of benefit to the person taxed, would be grossly unjust, tyrannical and oppressive, and might well be characterized as public robbery.

—Supreme Ct., Michigan (*Williams v. Mayor Detroit* 2. Mich. 560 (1853))

The benefit theory of taxation is a logical corollary of John Locke's theory that government exists to secure to men their natural rights (Simpson 1939: 463). As Locke ([1689] 1764: ¶140, 193) put it:

'Tis true, governments cannot be supported without great Charge, and 'tis fit every one who enjoys his share of the Protection, should pay out of his Estate his proportion for the maintenance of it. But still it must be with his own Consent, i.e., the Consent of the Majority, giving it either by themselves, or their Representatives chosen by them. For if any one shall claim

a *Power to lay* and levy *Taxes* on the people, by his own authority, and without such consent of the people, he thereby invades the *Fundamental Law of Property*, and subverts the end of government. For what property have I in that which another may by right take, when he pleases to himself?

The obvious criticism to be made of this passage is that natural rights are individual rights and the consent of the majority is not the consent of any individual. As Dietze (1971: 172, 193, 209) and Nozick (1974: 209–292) have argued, a majority can be as despotic as any monarch. Consequently, a true system of benefit taxation must be predicated on individual consent. This is precisely what the single tax advocates claimed their scheme amounted to—a voluntary transaction in which the landholder freely chose to pay to the state an amount equal to the benefit received. In rejecting the utilitarian ability theory of taxation, Henry George (1890b: 83; 1879: BK VIII, Ch. 3, ¶34–36) argued, assuming a zero-rent extensive margin:

We ought to tax men according to the special advantages they receive from the community, thus putting all men on an equal plane and giving free play to personal qualities. Here is the principle: We are all equally entitled to the use of land; and for the use of land in itself there should be no tax whatever. But where a value attaches to the land itself—that is to say, where land is so much better than the ordinary that it commands a premium—there a special privilege is accorded the holder. He receives from social growth and improvement a special advantage; and in the tax we propose we would simply take the value of that special advantage for the whole community, thus putting all upon the same plane.

The single tax on land values is thus deduced by its supporters as a logical result of the Lockean theory that all people are born free and equal, that the state exists to protect their natural rights, and that for the state to appropriate their legitimate property without their consent is to violate the very reasons for the state's existence. The taxation of land values is not taxation at all; rather, it is a voluntary payment by the individual in return for the special privilege of exclusive use of common property (Smith BK V, Ch. 2, ¶ 76)

In the next section, we will consider objections to the ethical arguments in favor of the single tax on land values. In considering these objections, it is worth bearing in mind the comment by Laslett ([1963] 1965: 107): “All that happens if you wish to disagree is that you find the task of proving something different uncomfortably thrust

upon you.” A similar thought seems to be applicable in regard to single tax arguments derived from the same premises.

7.4. Justice-Based Objections

Over the years a number of issues have been raised about the claim that the tax on land values is a just tax. Here we shall consider a number of those objections.

Objection 1: The Lockean proviso is meaningless, since the only way “enough, and as good” can be left for others is simply not to use any natural resource at all: “as no one ought to use the property of others so as to destroy it, therefore no one ought to use any natural object as fuel or as food, or in any other way that destroys it” (Spence 1890: 12).

Answer:

- (1) The single tax theory is predicated on the idea of equal rights to the use of the earth, not joint rights of ownership. The objection, on the other hand, amounts to the contention that no one has any right to use the earth unless he or she has (what is impossible) the consent of the unborn, an inference that is clearly opposed to the stated hypothesis of equal rights to the use of the earth. “Not non-use of natural media, but equality of use or compensation for unequal use, is the logical corollary of the doctrine of equal right to the use of the natural media” (Hirsch 1901: 364).
- (2) In the case of depletable resources such as mines, intergenerational equity requires that depletion charges be earmarked for public investment. In this way, future generations are compensated for unequal intergenerational access to depletable resources. Henry George (1891: 30–31) argued that nature’s storehouse is being continually replenished as physical capital deteriorates and returns to nature. This ignores the fact that the exploitation of depletable resources leaves future generations less easily worked mines, and, in that sense, they are worse off, even though benefitting from the capital into which such resources may have been converted.

Objection 2: If, as Herbert Spencer (1851: Ch. 10, §1, ¶3–4) argued, the consent of other commoners is required before anything can be appropriated, how can private property, justified by labor, ever exist, since how can one obtain the consent of all people? Labor, after all, merely alters the form of the appropriated object, rather than creating it and, if the original object belonged to all mankind, why should labor extinguish their title?⁴⁸

Answer: As Locke ([1689] 1764: ¶28, 29) argued, people have equal rights to use the earth rather than joint ownership of the earth, thus making it unnecessary to gain consent for every use of the commons: “If such a consent as that was necessary, man had starved, notwithstanding the Plenty God had given him.” Thus, Herbert Spencer’s formulation was inexact. The distinction between equal and joint rights seems to go back to Pufendorf (Schlatter [1951] 1973: 146–149, 153, 156–157). Henry George (1892: 27–30) explained the distinction thus:

When men have equal rights to a thing . . . each has a right to use all or any part of the thing that no other one of them is using. . . . But where men have joint rights to a thing . . . then the consent of all the others is required. . . . Now, the rights of men to the use of land are not joint rights: they are equal rights.

When there is more than one man on earth, the right to the use of land that any one of them would have, were he alone, is not abrogated: it is only limited. . . . It is, thus, only where two or more men want to use the same land at the same time, that equal rights to the use of land come in conflict, and the adjustment of society becomes necessary . . . the function of society with regard to the use of land only begins where individual rights clash, and is to secure equality between these clashing rights of individuals.

The conclusion is that universal consent is not necessary when land is valueless because there is no competition for its use. Nor is appropriation by this generation subject to the unachievable consent of the unborn. Equality of access to natural resources and equal enjoyment of the rent, not consent, is the essence of the Lockean proviso as interpreted in the “single tax.”

Objection 3: The labor theory of property right, grounded as it is on the right of the producer to what he or she has made, is defective because:

- (a) Labor makes nothing. It only transforms existing matter. Thus everything is as much the work of nature as of people (Hirsch 1901: 349–352, 359–361).
- (b) Individual labor cannot be said to produce anything of itself in a complex society, in which production is carried on by corporations and is so interdependent that thousands may be involved in the manufacture of a single product (E. R. A. Seligman [1931] 1969: 70–71; Schlatter [1951] 1973: 278; Brown 1924a: 172–173).

Answer: Before replying, the single tax advocate would ask two questions of these critics:

- (1) If the fact that nature alone creates is to be used against an exclusive title to what I have made, then as Locke ([1689] 1764: ¶28) inquired, by what right do I even own myself?
- (2) If it is claimed that everything is really produced by an organic entity called society, then do we have, as individuals, any rights against society; does it not even own our very lives? E. R. A. Seligman (1890: 40) may well have answered yes to this question.

However, it is not necessary to pursue the logic of alternative hypotheses; the original questions can be considered on their own merit; and the following replies have been given.

- (a) (i) The Lockean theory and the single tax theory derived from it do not deny the right of appropriation from nature; they simply insist that it is an equal right of all people. The fact, therefore, that labor-products are also nature-products does not vitiate private title to them.
- (ii) If the contention is made that landownership is as valid as the ownership of the natural resources embodied in a “labor product,” the question arises as to whether equal rights to natural resources are being thereby violated.

Labor products are always disintegrating back towards nature, the common reservoir. To recognize exclusive private ownership in them does not therefore leave the reservoir less full in the long run for others. It does not therefore violate the equal rights of all to draw from nature’s reservoir (George 1891:

30–31; Locke [1692] 1973: ¶30, 33). In the case of depletable resources, equal rights can be secured by public investment of depletion charges (Harriss 1979: 366–367). The point of the Lockean proviso is to secure equal rights of, and benefits from, appropriation. Absolute private ownership of nonreproducible land, in contrast to ownership of reproducible goods, does violate the proviso.

- (b) As to the objection that production is a social process, it would appear that it is merely necessary to pierce the corporate veil and apply the theory of marginal (or specific) productivity to be able to impute to each producer the value of his product (Brown 1924a: 172–173). This is, of course, what a free market and a free wage contract is supposed by economists to do. If producers have paid society to compensate for the natural resources they have appropriated and for labor and capital inputs, why should they pay anything further? Have they not secured their title by a process of just acquisition and just transfer (Andelson 1971: 105–106; Andelson and Gaffney [1979] 2003: 277–278; George 1892: 213)?

Objection 4: The single tax advocates claim to believe in the right of producers to the fruits of their labor. Land is often owned by those who have invested their wages in land. Surely, then, any taxation of land values is a violation of the legitimate property rights of these purchasers? This reasoning was voiced by a number of critics, including Ricardo (Ch. XIV, ¶6), Davenport (1917: 2, 11), J. B. Clark (1890: 21–22, 25), F. H. Knight (1953: 810), and Lee (1893: 441–442).

Answer: This is a totally incompetent argument for establishing a natural right to private property in land. It ignores the basic rule for justice under any entitlement theory, which is that there be both just acquisition and just transfer, two requirements summed up in the legal principles of “*nemo dat quod non habet*” (“you cannot get a good title out of a bad one”) and “*caveat emptor*” (“buyer beware”).

This objection has been so often raised that it seems appropriate to quote Henry George’s (1879: BK VII, Ch. 3, ¶18) response to it at some length:

Now what does the law allow to the innocent purchaser when the land for which he paid his money is adjudged rightfully to belong to another? Nothing at all. That he purchased in good faith gives him no right or claim whatever. . . . It gives the innocent purchaser of a wrongful title no claim, it allows him no compensation. And not only this, it takes from him all the improvements that he has in good faith made upon the land. . . . And . . . when you have surrendered the land and given up your improvements, you may be called upon to account for the profits you derived from the land during the time you had it.

Echoing Spencer (1851: Ch. 9, §3), George (1892: 21–22) also comments elsewhere:

Clearly, purchase and sale cannot give, but can only transfer ownership. Property that in itself has no moral sanction does not obtain moral sanction by passing from seller to buyer. If right reason does not make the slave the property of the slave-hunter, it does not make him the property of the slavebuyer. Yet your reasoning as to private property in land would as well justify property in slaves. . . . This very argument, that purchase gave ownership, was the common defense of slavery.

George (1892: 225–226) also comments:

What the state destroys in abolishing slavery is not what may have been given for the slave, but the value of the slave. That the purchaser got by honest work what he exchanged for the slave is not in point. He is not injured as laborer, but as slave-owner. If he had not exchanged his earnings for the slave the abolition of slavery would have caused him no loss. When a man exchanges property of one kind for property of another kind he gives up the one with all its incidents and takes in its stead the other with its incidents. He cannot sell bricks and buy hay, and then complain because the hay burned when the bricks would not. The greater liability of the hay to burn is one of the incidents he accepted in buying it. Nor can he exchange property having moral sanction for property having only legal sanction, and claim that the moral sanction of the thing he sold attaches now to the thing he bought. . . . Exchange transfers, it cannot create. Each party gives up what right he had and takes what right the other party had. The last holder obtains no moral right that the first holder did not have.⁴⁹

Objection 5: Are Lockean natural rights the only rights? Does not the law allow rights to arise historically? Do we not have natural titles by prescription? Granted that land titles may historically have been obtained by force and fraud, does not prescription establish the title

of the present owner? This argument was put forward by Edmund Burke ([1790] 1864: 422–423, 493; [1795] 1910: 132, 137) and discussed by Schlatter ([1951] 1973: 173, 179–180). It was also adopted by Jeremy Bentham (Schlatter [1951] 1973: 247; Dietze 1971: 67) and was very evident in the work of John Stuart Mill (BK II, Ch. 2, §2, ¶4, §7, ¶30).

Answer: The utilitarian argument for prescription is due to a pragmatic regard for property rights as a prerequisite for capital formation. That justifies a tax on land values simply because it is a most efficient tax (Kittrell 1957: 381). The pragmatic basis of utilitarian arguments for the rule of prescription seems to be also indicated by the lack of support for perpetual patents or copyrights. However, Edmund Burke and John Stuart Mill argued for title by prescription on the grounds of justice, not practical results.

To deny that prescription can create private property in land is simple. The doctrine of prescription derives from the principle of statutes of limitations, the idea that the dead should be left to bury their dead, that past wrongs cannot meaningfully be litigated when parties and witnesses are dead or cannot remember the details of a case. That the rule of prescription is a conventional rule can be seen in the willingness of U.S. courts to support affirmative action to rectify the “results” of past racial discrimination, even when previously legal. (Whether this can be done without fresh injustice is another question.)

However, the claim that all people, over all generations, have equal rights to the earth, a claim that John Stuart Mill (BK II, Ch. 2, §6, ¶26–27, Ch. 10, §1) accepted, means that this and future generations have an original and inherent right to the use of the earth. Yet the value of land derives, not from past appropriations of rent, but from the right to appropriate rent now and in the future. The rule of prescription therefore does not apply, since we are talking about a present and ongoing denial of an inherent right (Mill, BK II, Ch. 2, §2, ¶4, §7, ¶30). One cannot consistently urge title by prescription in this case and still accept the doctrine that all people have equal rights to the earth (Schlatter [1951] 1973: 222, 262). If one does not accept the idea that all generations have equal rights, one must accept that later generations are born with inferior rights to those of the present (Mill, BK II, Ch. 2, §6; Smith, BK III, Ch. 2, ¶6; Bray 1839: 33–34).

It is perhaps appropriate to allow Henry George (1892: 227–229) to present this argument himself:

Now in merely abolishing property that involves wrong, the state imposes no penalty, it does not even demand recompense to those who have been wronged. In this it is more lenient than the principles on which we administer justice between man and man. For they would require the innocent purchaser of what belonged to another to make restitution, not only of the thing itself, but of all that had been received from it.

... A question of the ownership of a coat, a tool, a house, a bale of goods, is a question of the ownership of the concrete results of past labor. We know from the nature of the thing that it must be owned by somebody, but after lapse of time we cannot from the weakness of human powers undertake in case of dispute to determine who that may be; and hence, refusing to inquire so far back, we assume the right to be in the possessor, of which we have at least presumptive evidence. But a question of the maintenance or abolition of slavery or private property in land, of the continuance or non-continuance of a trade monopoly, a hereditary pension, or a protective duty, is a question whether the state shall or shall not in the future lend its power for the wrongful appropriation of the results of labor yet to be performed. There is in this no place for the principle of statutes of limitation. No indistinctness as to the past can affect the decision. It is not a question of what has been done in the past, but of what shall be done in the future.⁵⁰

Objection 6: There is a natural right of private property in land furnished by the rule of first occupation or discovery.

Answer: This is the view of the Roman law and of classical liberals who have discarded the Lockean proviso (Rothbard [1957b] 1997: 302; Dietze 1971: 50). It has a long history and deserves to be taken seriously. Used in conjunction with the rule of prescription (since few, if any, land titles can be traced to the first occupant by a voluntary chain of transfers), it is probably the most popular justification for private property in land.

The first occupation theory of landownership seems to be partly held by Locke ([1692] 1973: ¶28–33) himself in an analogy to the appropriation of movables from a common (Schlatter [1951] 1973: 40–41, 43, 233, 235–236). However, Locke's examples are inappropriate since in the medieval common, consent was given to the appropriation (Laslett [1963] 1965: 331n, 333n). Locke himself ([1692] 1973: ¶37–38) senses the difficulty, realizes that unlimited appropriation of

land itself on the “first come, first served” principle would violate his proviso, and thus suggests the rule should be occupation and use (Schlatter [1951] 1973: 24, on Cicero’s anticipation of the occupation and use formula). Even this, however, would still violate the proviso (in spite of Locke’s minimization of the existence of rent), so Locke ([1692] 1973: ¶45–50) is eventually forced to invoke tacit consent via the introduction of money (Schlatter [1951] 1973: 158). Moulds (1964: 184) finds another justification for landed property given by Locke, namely, the inefficiency of common tenure.

An important problem with first occupation rights is that they confuse equal rights and joint rights. Any theory that legitimizes landownership based on first occupancy is ultimately incompatible with the idea of equal rights and its implied Lockean proviso. The theory substitutes joint rights, which are then assumed to be waived by express or implied consent to the “first occupation” rule (Schlatter [1951] 1973: 128–130). But this destroys the legitimacy of the rule itself, since those who argue for it must then exhibit a historical declaration of consent and explain why, in any case, it should be binding on the unconsenting unborn (Schlatter [1951] 1973: 152–153, 146–147, 166, 172; George 1879: BK VII, Ch. 1, ¶17n2; Spencer 1851: Ch. 9, §4) .

It should also be noted that the formula of *occupancy-and-use* espoused by some as a concession to the Lockean proviso does not meet it at all and raises problems of its own. For example, the occupancy-and-use principle would allow one person to occupy and use a region by settling it with tenants. Catholic economist John A. Ryan ([1916] 1927: 25–26) held ownership of vast estates through “occupancy” was legitimate as long as the occupier-owner leased land at a “fair rental.” By this logic, one person could own the entire planet as long as he or she charged a “fair price” to the rest of us. In addition, there is no explanation within this framework about who owns territory if the “occupier” leaves for a short period (a day, a week, a year). An example of the absurdity of this position can be found in Benjamin Tucker’s argument that if a person is away from her property, she would lose her claim not only to land and buildings, but also to her personal property (Schwartzman [1979] 2003: 335). There is also no clarity about whether subsoil minerals included with land granted under this formula would belong to the owner or to the finder.

Some of the more striking consequences of the first occupation theory were suggested by Henry George (1879: VII, 1, ¶29–32):

Does the first passenger who enters a railroad car obtain the right to scatter his baggage over all the seats and compel the passengers who come in after him to stand up?

The cases are perfectly analogous. . . . Just as the passenger in a railroad car may spread himself and his baggage over as many seats as he pleases, until other passengers come in, so may a settler take and use as much land as he chooses, until it is needed by others—a fact which is shown by the land acquiring a value—when his right must be curtailed by the equal rights of the others, and no priority of appropriation can give a right which will bar these equal rights of others. If this were not the case, then by priority of appropriation one man could acquire and could transmit to whom he pleased, not merely the exclusive right to 160 acres, or to 640 acres, but to a whole township, a whole state, a whole continent. . . .

Any one human being, could he concentrate in himself the individual rights to the land of any country, could expel therefrom all the rest of its inhabitants. . . .

And what upon this supposition would occur is, upon a smaller scale, realized in actual fact. The territorial lords of Great Britain . . . have over and over again expelled from large districts the native population, whose ancestors had lived on the land from immemorial times—driven them off to emigrate, to become paupers, or to starve.

Another example of the incompatibility of the first occupation theory with, not only the Lockean proviso, but even the labor theory of property right itself was given in George's (1887a: 7) parable of the oasis:⁵¹

Now, here is a desert. Here is a caravan going along over the desert. Here is a gang of robbers. They say, "Look! There is a rich caravan; let us go and rob it, kill the men if necessary, take their goods from them, their camels and horses, and walk off." But one of the robbers says, "Oh, no; that is dangerous; besides, that would be stealing! Let us, instead of doing that, go ahead to where there is a spring, the only spring at which this caravan can get water in this desert. Let us put a wall around it and call it ours, and when they come up we won't let them have any water until they have given us all the goods they have." That would be more gentlemanly, more polite, and more respectable, but would it not be theft all the same?

Finally, it may be remarked that there is a peculiar irony in the adoption by some modern libertarians of the twin rules of first

occupancy and prescription; for, given these, one could reconstruct quite easily Sir Robert Filmer's arguments in favor of absolute monarchy as drawn from Adam's original sovereignty; and this, of course, was the doctrine that Locke ([1689] 1764) himself set out to refute.

Objection 7: The advocates of land value taxation have told us much about unearned increments, speculative gains, and windfalls in landownership. Why then do they not propose to tax other speculative gains or windfalls? And if they are to tax unearned increments, will they allow deductions for unearned decrements? (E. R. A. Seligman 1890: 93–95; Lee 1893: 439–440; King 1924: 610). This objection may have been inspired by the arguments urged by Wicksell ([1896] 1958: 112–116) and others for the taxation of windfall profits as such, in which they included land value increments.

Answer:

- (1) Taking the last question first: this objection is based upon a mistaken analogy with the deduction of losses from profits in the computation of income taxes, as well as upon a confusion of ad valorem land value taxation with John Stuart Mill's scheme in regard to rental increments.

The answer is that ad valorem land value taxation automatically allows for value decrements. If the land value falls, so does the tax. As the tax is increased to absorb the rent, it leaves "nothing to invest in or to gamble about or to lose by—an illustration of the ancient truth that, if you will sit always on the ground, you can never fall off" (Davenport 1917: 12).

- (2) (a) As for speculative gains generally, if the objector favors their taxation *per se*, "it does not follow that the heavier taxation of land values should be deferred until such time as a general agreement is reached regarding such other increments" (Brown 1917: 481).
- (b) It is also worth considering the nature of other "unearned increments." The extent of the dependence of share values on underlying natural resources owned by companies is not always recognized (Gaffney 1970: 159–167). Thus, in many cases, corporate "profits" are actually derivative gains from the ownership of natural resources, such as shares in oil and

mining companies. Piercing the corporate veil, one sees that land value taxation would automatically reduce such speculative gains and losses.

- (3) In the case of gains in gold and silver jewelry and bullion, depletion charges have already taxed these *ex ante*. Thus one cannot levy special taxes on gains *ex post* from the severed metals without lowering the state's *ex ante* ad valorem and depletion charges on the mines from which they come.

As for unearned increments in bonds, paintings, statues, and the like, are they really "unearned?" Is not the prospect of a gain or loss on a bond allowed for *ex ante* when the lender decides at what interest rate and for how long he will supply his money (George 1890b: 81)? Does not the fact that the patron of an artist may gain an increased value for the painting *ex post* influence the remuneration of the painter *ex ante*? And does not that, in turn, influence the entry of artists into a hazardous profession in which the secret thought of posthumous fame is sometimes the meager consolation of a lifetime of penury (Mill 1875: 287–289; Cairnes 1873: 230–231)? And if it is contended that a tax on the value of Old Masters will scarcely influence their supply, that is simply an illustration of the adage that "taxes delayed are taxes denied."

But why should we limit this discussion to such esoteric cases? Is not all business a matter of speculative gain? Is not profit, considered as a residual over the cost of capital, a useful reward for superior ability in producing for an uncertain and risky future?

This reflection brings us to the fundamental point. The single tax argument is not based on hostility to speculative gains *per se*. It recognizes their role in guiding an economic system towards a moving equilibrium amidst risk and ignorance. Land markets would continue to function under the single tax. There would still be a reward to the land-user who can employ land better than his fellows, since the competitive value of land is the basis of assessment. No, speculative gains are irrelevant. The whole question is one of legitimate property rights. If private

property in labor products be legitimate, then so are all speculative gains in their value. In contrast, since single-taxers find landed private property in fee simple to be illegitimate, then it follows *a fortiori* that they will peculiarly stigmatize speculative gains in what they contend to be immoral property.

Objection 8: Strictly speaking, is not the single tax argument on property rather extreme? Does it not, of necessity, amount to a denial of the taxing power of the sovereign? Or to borrow a phrase from M. Proudhon, does it not amount to the proposition that “taxation is theft”?

Answer: Consider the alternative. Concede the sovereign taxing power as a principle of natural law, concede the power of the state to spend as it wishes, and you have conceded the justice of land value taxation. For what is to stop the state from taxing all incomes at 100 percent and then granting 100 percent rebates in respect of labor and capital income taxes?

Yes, we deny the legitimacy of the taxing power *per se*, for the unlimited power of taxation is ultimately incompatible with legitimate private property rights. We are not the first to see that; it was seen, in part or in whole, by medieval theologians (Viner 1978: 104–106), by John Locke ([1689] 1764: ¶139–140), by the Physiocrats, by Auguste and Leon Walras (Jaffe 1975: 813), by jurists, by courts, by writers who sought to link taxation to benefit, and by many who have sought to defend the property of citizens against the state.⁵²

Often, these authors have attempted to defend private property from arbitrary taxation by requiring some process of majority consent, but what defense is this of the rights of rich individuals against a determined majority?

Our view is different. We would defend absolutely and without exception legitimate private property. We just as strongly insist that the state, in putting its citizens in a position of equal natural opportunity, must collect its revenues from the common property, land, that has illegitimately become private property. For us, as for Auguste and Leon Walras, “the problem of taxation and the problem of property are one and the same” (Jaffe 1975: 813). Henry George (1891: 55) saw the situation in the same way.

Since proponents of the single tax have often been accused of attacking property rights, the following comments by Henry George (1892: 70–71, 207–209) should clarify this question:⁵³

I have been a stauncher denier of the assumption of the right of society to the possessions of each member and a clearer and more resolute upholder of the rights of property than has Mr. [Herbert] Spencer. I have opposed every proposition to help the poor at the expense of the rich. I have always insisted that no man should be taxed because of his wealth, and that no matter how many millions a man might rightfully get, society should leave to him every penny of them.

In nothing is the divergence between us and the common opinion more sharply shown than in this, that we utterly deny the right of the community to take the property of the individual for any purpose whatsoever, except under circumstances where all rights must yield to the supreme right of self-preservation. . . .

But short of this, which is not a limitation but an abrogation, we hold the right of property to be absolute, and deny the proposition which Mr. [Herbert] Spencer . . . asserts, and which is commonly conceded, that the right of property is limited by the right of the state to take in taxation what it may think it needs.

In this confusion of thought [about legitimate property rights] we who hold that right of property is an absolute right, we who say that the command “Thou shalt not steal” applies to the state as fully as to the individual, are looked upon by one side as deniers of the right of property, and by the other—even by the poor, timid university socialists—as not radical enough.

Yet to whoever will grasp first principles it must be evident: . . . That there can be no real antagonism between the rights of men and the rights of property—since the right of property is but the expression of a fundamental right of man.

George’s argument raises questions about the concept of the state, for if the state has complete discretion in its expenditure powers, what is to prevent its disbursing its land tax revenues to a particular class such as the former landowners. A defense of the single tax on land values would perhaps then propose a concept of the state as a trustee bound to act for the common good and as a guarantor of the equal rights of its citizens. This stance denies the legitimacy of hand-outs to particular interest groups or favors to one class of citizens at the expense of another.

A proponent of the single tax would further insist that the state confine itself to a) spending its revenues on providing pure public goods, whose benefits are available to all equally, and b) distributing whatever is left over as a surplus to citizens on an equal basis as a social dividend. This would implement equality under law, for all would be equally free to employ their productive talents without tax penalties, all would share equally in the pure public goods, and all would receive an equal dividend from the common property. Such a social dividend would be a matter of justice, a recognition of equal rights to the earth, rather than degrading public charity financed by an equally repugnant public robbery (taxation of earned incomes). That is the way Henry George (1892: 255–56) and Herbert Spencer (1851: Ch. 22, §2–4) saw the proper role of government.

Objection 9: The single tax philosophy is based on a concept of equal rights, which means that taxes should be levied in accord with “ability to pay” and that persons with equal incomes should be taxed equally.

Answer: An advocate of the single tax on land values would respond in three ways to that claim:

- (1) The “ability to pay” theory of taxation is a deduction from utilitarianism. Yet utilitarianism has no theory of rights (Spencer 1851: Ch. 4, §6; George 1892: 211, 233–234). Thus it can make no protest on such grounds against the single tax on land values. Did not Bentham himself assert that “[t]here are no rights without law—no rights contrary to law—no rights anterior to the law” and that “[p]roperty and law are born and must die together”? (qtd. in Schlatter [1951] 1973: 246).
- (2) Even if one were to accept utilitarianism as a philosophy, despite “the conventional acceptance by economists, almost as a fetish, of the ‘ability theory of taxation,’ it does not at all necessarily follow that taxation according to ability, in the sense commonly understood, most conduces to the general well-being” (Brown 1924a: 183). Utilitarianism does not logically imply ability taxation, but rather optimal taxation, to use the modern phrase. But what tax is more optimal than a tax on rent? Is it optimal to tax labor and capital before taxing rent?

After all, Bentham himself saw that production must come before distribution or redistribution and accordingly argued that production would be well aided by securing to the cultivator the fruits of his labor (Schlatter [1951] 1973: 247).

As for Bentham's well-known concern for security of property on utilitarian grounds of productive efficiency, this would seem to be an argument against the "ability" theory more than against encroaching on vested rights in land by taxation of land values. For, if the introduction of land value taxation is gradual, the effect is equivalent to a fair degree of compensation to landowners by annuities, a method Bentham himself advocated when reforms would abolish old property rights (Schlatter [1951] 1973: 248).

It is thus clear that land value taxation can be argued for on utilitarian grounds and that it has the merit of leaving to the producer the fruits of one's own labor.

- (3) To return to the "ability" theory; its purpose as an end-state theory of distributive justice, based on the implicit right of all people to equal happiness, is sought by a greater equalization of incomes (Spencer 1851: Intro., Moral Sense, §3).

Setting aside the vexed question of the identification of happiness with income, such equality may nevertheless be chimerical. Such an equality is less believable than the equality of natural opportunity, which is what the single tax philosophy offers. There must always be natural differences and inequalities, and to bring about "equality of outcome" one must violate fundamental principles by treating unequals as equals (George 1890b: 82; 1891: 81; Jaffe 1975: 812–813).

Objection 10: The single tax philosophy rests upon the assumed equal rights of all people to the use of the earth. If this be so, then no nation has the right to exercise territorial sovereignty and exclude citizens of other nations from their equal share of the national rent fund (Lee 1893: 448 n.; Nozick 1974: 178; Carver 1915: 290; Spencer 1893: App. B, 440–441).

Answer: There is nothing in the single tax philosophy that requires acceptance of Locke's supposed compact between the nations to parcel out territory (Locke [1689] 1764: ¶45). In an absolute sense, the

objection is well taken, and the single-taxer's reply would perhaps begin by acknowledging that fact.

- (1) If the world were one social body, under one set of laws, the objection would be fully valid. Even in a world of nation-states, there is much justice in it with regard to resource rents. If this is visionary, the United Nations has shared the vision in its conferences on the law of the sea and sovereignty over the moon, both of which have assumed these territories to be the common heritage of mankind. In addition, there is something immoral about the oil-producing countries' actions monopolizing the rents of resources they did not create.
- (2) The concession regarding natural resource rents does not, however, apply to community-created rents. Insofar, as rents are due to the "good government of the sovereign," who protects the community and provides public services (Smith BK V, Ch. 2, ¶76), and also due to community-created externalities, then the nation-state is entitled to appropriate its rents and distribute them among its own citizens to the exclusion of the rest of the world.
- (3) If a nation-state were to allow free immigration of individuals who would abide by its laws and not threaten its existence, then it would be recognizing, so far as is possible in an imperfect world, the equal rights of individuals to the use of the earth. In a world of nation-states, the universal adoption of land value taxation, free trade, and free migration would go far indeed towards acknowledging the truth in the objection (Gesell 1929: 55, 86–87; Hirsch 1901: 361–363; Andelson 1971: 109–110; Douglas ([1979] 2003): 149–151).

Objection 11: If untaxed private property in land is unjust, then that injustice is due to the action of society when it alienated the land into private ownership. Society would be breaking faith with land-owners were it to suddenly impose land taxes without itself bearing the burden of rectifying its own mistake and compensating land-owners (Lee 1893: 437; Davenport 1917: 6–8; King 1924: 608).

Answer: This objection to the taxation of land values was raised in the work of James Mill (1826: 250–251) and J. S. Mill (BK V, Ch. 2, §5,

¶29). It was also urged by J. B. Clark (1890: 21–23) and F. H. Knight (1953: 810) among many others. The idea of a social pledge has been urged on four grounds:

- (1) contract (the state has entered into an implicit contract with landowners to protect their property rights)
- (2) estoppel (denies right of the state to reverse its previous acquiescence in undisturbed ownership of land)
- (3) desuetude (disuse of legislative power to tax land cannot be modified by state today)
- (4) retrospectivity (a tax on land values is a form of *ex post facto* law that retroactively questions the morality of private land ownership)

From the point of view of strict legal fact, none of these legal doctrines can be invoked against the imposition of a tax. As explained before, the Crown cannot be bound, by contract or estoppel, to refrain from imposing taxes; the rule against retrospectivity is not absolute and, moreover, is not applicable to a tax determined with reference to present and future landownership. As for the doctrine of desuetude, it is a Scottish legal notion (used by James and John Stuart Mill) not found in the common law, and in any case it cannot be used against the enactment of new legislation by the sovereign as opposed to its nullifying effect on old legislation. The final legal fact to be borne in mind is that the Crown has never alienated, nor could alienate, its ultimate ownership of the soil.

Passing from the field of positive law to the field of ethics, in which earlier economists sought to transplant these legal doctrines, we may now consider the single tax reply on the ethical merits of the case. A single-taxer would contend as follows:

- (1) The plea to compensate those adversely affected by land value taxation “does not involve the validity of any contract or agreement or promise formally made by the state. This does not exist and is not pleaded by the advocates of compensation” (George 1892: 220).
- (2) If such a contract did exist, it would be *ultra vires*—beyond the power of the legislature, as trustee for the nation, to alienate its

patrimony (Andelson 1971: 109). For, as the Victorian Land Tenure Reform League argued in 1872, “selling the fee-simple of the land is a political misdemeanor, as opposed to justice and reason, as it has proven injurious to the material and moral interests of society” (quoted in Scheftel 1916: 32n3).

- (3) If John Stuart Mill (BK V, Ch. 11, §10, ¶33) thought fit to argue that perpetual contracts should not be held binding as between individuals, then surely he should have agreed that one generation should not have the power to bind its descendants in perpetuity by contract, let alone by custom; and yet this is what his reliance on desuetude amounts to.
- (4) As for the contention that, if landed property be wrong, the state, having given its pledge, is bound not to tax without compensation, “there is here added confusion as to the relation between the state and its members. If the maintenance by the state of a species of property that involves wrong is to be considered as the action of all its members, even of those who suffer by it, so must the resolve of the state to do so no longer be considered as the resolve of all, even of those who relatively lose by it. If the one cannot demand recompense, how can the others demand compensation?” (George 1892: 230).

To take this objection of an implied pledge by society to its logical conclusion, one would have to contend that when slavery was abolished, the slaves should have contributed to a general tax to compensate their owners. In the same manner, if landowners are compensated for being taxed, the expectations of non-landowners to be free of taxation would be violated when they were forced to pay taxes to fulfill those compensation claims. No social policy can be changed without violating some “pledge” (Brown 1946: 338–341; 1949: 387).

- (5) Finally, it should be pointed out that the objection is theoretically unsound. The proposition is urged by the objectors that “the *whole* of society is responsible for the present land system and not merely those who suffer by it, and that all, *including landowners*, may properly be taxed to secure a landowners’ compensation fund. To such persons we may point out that

landowners would be no more discriminated against and no more injured, in practice, by *gradually* increasing the percentage of land rent taken in taxation and by not giving them compensation than by *taxing them with the rest of society* to secure the means for their compensation. It is only required that the transition to the higher tax rate should be spread over a sufficient number of years for the end in view" (Brown 1917: 486–487; 1924a: 179–180n).

In sum, society violates no pledges when it introduces land value taxation. Even if there were such pledges they would be invalid. In any case, the proposed mode of avoiding the breach of such a pledge amounts to the gradual introduction of a land value tax.

Objection 12: A tax on land values is justified in ethics by appeal to a theory of natural rights. If we reject any concept of natural rights, do we not then destroy the basis of the single-taxers' distinction between legitimate and illegitimate property rights? Can we not then argue for some rule such as proportional taxation as the standard of justice in taxation? (See Schlatter [1951] 1973: 144, 206, 239, 242, 246–247, 251, 269 for a discussion of conventional theories of property.)

Answer: The single-taxer would say that this is a game of "heads I win, tails you lose." If there are no natural rights, there is no justice beyond positive law and you must accept the justice of land value taxation, if we can get the power to implement it. If, on the other hand, there are natural rights, you must go back and establish a natural individual right to private property in the earth and find a better basis than prescription or first occupancy and the like.

And if you still reject the theory of natural rights as I have expounded it, I have worse in store for you. Land value taxation can even be deduced from social Darwinism, utilitarianism, and John Rawls's (1971) social contract theory on their own premises.

Let us start with Rawls's social contract theory. From it, I could argue for equality of rights to the earth from the manner in which the original contract is made. I also note that its "maxi-min" social welfare function is as subject as any other utilitarian social welfare function to the rule that taxation should be optimal. On productivity grounds, a

tax on rent is optimal. Utilitarianism and social contract theory, strictly speaking, should support a tax on land values. Where Rawlsians would differ with the single tax philosophy is in their view of whether other taxes should be implemented as well and how the total proceeds should be spent.

As for social Darwinism, the crude version put forward by T. H. Huxley suffers from the problem faced by everyone who denies natural rights, namely, that he cannot say it would be wrong for the people to expropriate the landlords (Douglas ([1979] 2003): 138–141). The rough and ready version of social Darwinism expressed by T. N. Carver (1915: 301–303) quickly led him to endorse land value taxation, on the grounds it would force talent into productive, rather than merely speculative, activity (Andelson [1979c] 2003: 475). And, finally, Herbert Spencer's evolutionary philosophy brought him back to the same equal right of all men to the use of the earth that he had enunciated in *Social Statics* in 1850. Spencer, in his later years, attempted to minimize the practical import of his conclusions, but never withdrew the conclusions as such (George 1892).

Therefore, it does not seem to us that anyone has been able, on a philosophically consistent basis, to refute the justice of land value taxation. Frankly, we must confess that we wonder whether economists who have objected to land value taxation on the grounds of "equity" have ever tried to define the word; we can only attribute the repetition of this "equity" objection to the tenacity of "exploded systems and obsolete prejudices" (Smith BK V, Ch. 1, ¶162).

Conclusion of this Section

I have sought in this section to explore the most common objections to land value taxation in terms of justice and, in so doing, I have sought to reproduce both the substance and the style of the arguments involved. Since abstract justice is generally regarded as irrelevant to economics, it would have been easy to omit discussion of the "metaphysical arguments by which they support their very ingenious theory" (Smith BK V, Ch. 2, ¶36), but the logical integrity of the single-taxers' philosophy seems to be generally unrecognized among economists and cannot be ignored if "equity" is to be discussed.

For those readers who do not enjoy speculative metaphysical arguments, the next section brings the surprising news that the practical importance of this debate is much less than its intensity would seem to presuppose.

7.5. Compensation of Landowners: Ethical or Not?

What we are proposing is taxation. Compensation does not consort with taxation . . . I never in all my life heard of the imposition of a tax with accompanying compensation to the people who were ultimately to pay it. If compensation of that sort is just, I have a big bill against this community myself.

—Henry George (1890b: 74)

Some writers who have been convinced either that private property in land is wrong or that land value taxation would be desirable have nonetheless felt it would be wrong for the state to impose a land value tax without compensating present owners. It is therefore worthwhile discussing the case for compensation when wrongful property rights are abolished or when taxation is imposed. It is, of course, clear that the following discussion is irrelevant to the libertarian position that all property, including landed property, is sacred and that all taxation is immoral. It is, however, relevant to the position of those who concede the desirability of land value taxation but are concerned about the transitional losses it might impose upon one generation of landowners.

Compensation for Abolishing Wrongful Property Rights

The pure single tax position is that private possession of valuable land without payment in recognition of the equal rights of others is unjust and the comparison has often been drawn with property in slaves, patents of monopoly, and sinecures.

The following question then emerges. Admitting that there are wrongful property rights that should never have been allowed to exist and admitting that they should be abolished, is it equitable to do so without compensating existing owners, who may have in no way helped to establish such unjust institutions?

Most economists would probably deny the equity of abolition without compensation and, certainly, John Stuart Mill, Leon Walras, and others advocated various forms of land nationalization with compensation.

Thus, J. S. Mill (BK II, Ch. 10, §1, ¶4) wrote:

The Land of Ireland, the land of every country, belongs to the people of that country. The individuals called landowners have no right, in morality and justice, to anything but the rent, or compensation for its saleable value.

The obvious objection to this statement is that it amounts to saying that "the ownership of the land of Ireland gave the people who morally owned it the right to *buy* it from those who did not morally own it" (George 1898: BK II, Ch. 2, ¶20).

Thus, the first objection to the idea of compensation or the abolition of a wrong is that it is a contradiction in terms and that it is a peculiar concept of equity that grants the victims of a moral injustice merely the right to buy the property right by which they are wronged.

The second objection is that "if any one is to be compensated on the abolition of a wrong, it is those who have suffered by the wrong, not those who have profited by it" (George 1892: 240). On the abolition of slavery, for example, strict justice would seem to require reparations be paid to the slaves, rather than that they should compensate their former masters (Garrison 1890: 19–20).

The third objection to compensation on the abolition of a wrong is that it must imply either perpetuation or a fresh injustice. Since the state has nothing of its own to pay with, compensation means that others must be taxed to compensate the holders of the wrongful property right. Thus if slavery be abolished with compensation, the slave-owners receive an

agreement that the government will take for their benefit and turn over to them an equivalent part of the property of all. The robbery is continued under another form. What it loses in intention it gains in extension. If some before enslaved are partially freed, others before free are partially enslaved. (George 1892: 225)

Dove (1850: 138–139) made the case with even greater vehemence against the actual payment of £20 million in compensation to British slave-owners when slavery was abolished in the West Indies in 1833.

By using the term “man-robber” for slaveholders, Dove makes clear that this was behavior that should never have been protected by law and should not have been compensated when slavery ended.

The planters knew perfectly well that they never had a moral right to the slaves, and consequently they could have no moral claim to compensation. . . . The payment of the twenty millions, therefore, resolves itself into this, “The law of Britain will not cease to lend its aid and its arm to perpetuate slavery, unless the people of Britain pay an immense sum to the planters.” It was a just, and, as the world goes, a glorious thing for Britain to abolish slavery as it did; but most certainly the laboring man of England, who pays five per cent on his tea, sugar, and tobacco, to pay the planters, is as surely oppressed and defrauded as was the negro, although not to the same extent. No man in the world, and no association in the world, could ever have an equitable right to tax a laborer for the purpose of remunerating a man-robber. . . . When the question of landed property comes to a definite discussion, there may be little thought of compensation.

The fourth objection to compensation when wrongful property rights are abolished rests on the observation that the value of such rights depends on the expectation they will continue to be maintained by the state. Utilitarians have traditionally argued that the frustration of legitimate expectations is inequitable (James Mill 1826: 251–254; Feldstein 1976b: 98). But is this correct?

The claim is merely that the state by its wrongful action having given rise to the expectation that it would continue such wrongful action, is morally bound, should it decline to do so, to compensate those who have invested in this expectation. (George 1892: 230)

Yet such an ethical doctrine seems to imply that, when the state makes peace, it must compensate those who invested in war industries; that, if the state has bought from one supplier, it should compensate him when it chooses another, or even that the state ought to suppress tax reform agitation that lowers the value of prospectively taxable property and thus frustrates the expectations of capital gains by investors (George 1892: 223–224, 230; H. G. Brown 1924a: 174–179). In short, a concept of “equity” that is defined in terms of respecting expectations simply amounts to accepting the status quo, whatever it is, as just.

The conclusion seems to follow that full or perfect compensation is impossible on the abolition of a wrongful property right. Economists

who have argued for compensation in such cases have therefore implicitly assumed that full or perfect compensation is not to be paid but have not always been aware of that assumption.

Theoretical Issues About Compensation When a Tax is Imposed

It has been argued that horizontal equity in tax reform requires that the government should compensate those who would otherwise lose by the change (Feldstein 1976a: 123–124). This argument rests on the utilitarian tendency to accept whatever system of property rights, taxes, or subsidies is in existence at a given time as an appropriate benchmark for deciding equity. By denying this starting point one could reject the argument *ab initio* but it is perhaps worthwhile pointing out some additional reasons why compensation on the imposition of a tax is theoretically unsound.

The first problem is that since taxation is the act of taking property without compensation, full compensation would seem to render a tax change nugatory. For that reason, “compensation to the ultimate payers of a tax is something unheard of and absurd” (George 1892: 242).

The second problem is that full compensation would mean that society buys the right from the proposed taxpayer to tax him or her. Since society has no funds of its own, it must tax others to compensate the prospective taxpayers. But if those others are not likewise compensated, one set of taxpayers is privileged in relation to the rest of society. Alternatively, if all taxpayers are required to pay an (uncompensated) general tax to compensate the particular taxpayers of the proposed special tax, then they are not fully compensated, since they too were obliged to contribute to their own compensation.

A third problem with the idea of compensation in a tax reform is that the supposed losers may be gainers in other respects (Feldstein 1976a: 126). Thus if a general property tax is replaced by a land value tax, the benefit to taxpayers of the abolition of taxes on their capital could in many cases offset the burden of an added land value tax (H. G. Brown 1946: 332).

Fourthly, compensation may be hardly necessary if agitation for a tax reform has served notice on the prospective buyer of property that a tax

may be imposed upon it. In such a case he has allowed for his risks, made his gamble on whether legislation would occur, and must accept without complaint whatever happens. The same argument applies to those owners of such property who choose not to sell out beforehand (Feldstein 1976a: 127–128; George 1890b: 78; 1892: 232–233).

A fifth objection to compensation may arise in circumstances where an existing tax has become burden less by the operation of tax capitalization and the proposed tax simply seeks to restore the intended burden. Thus it has been argued that a land value tax ought to be gradually raised since otherwise future purchasers of the land buy free of the tax and are unfairly exempted as compared with previous owners (Fillebrown 1917: 138–149; Mill 1872: BK V, Ch. 2, §6, ¶30; E. R. A. Seligman 1921: 174–183; 1916: 790–798). (This argument has some merit in highlighting a problem in “horizontal equity” but it ought to be noted that when all the rent has been taken in taxation, future purchasers would still buy free of the tax and would still be favored as opposed to those who held the land as the tax rate was raised.)

For these reasons, it would seem that full or perfect compensation upon a change in tax policy is not theoretically possible: indeed, it would seem to be a project akin to squaring a circle.

Practical Compensation in the Case of Land Value Taxation

Whether one approaches land value taxation from the point of view of the abolition of property rights or the imposition of a tax, the preceding paragraphs make it clear that full or perfect compensation is in theory self-contradictory.

What is possible and what is implicitly argued about is the question of practical, partial compensation upon the imposition of a land value tax.

The first mode by which landowners can be practically compensated is the gradual introduction of a land value tax. In essence, gradual transition is equivalent to J. S. Mill’s scheme for taking only future rental increments in taxation (Lee 1893: 445–446; Bickerdike 1912: 3; H. G. Brown 1917: 481–482; 1924a: 185–188). Just as the deferred abolition of slavery in some northern states of the American

Union meant the slave-owners lost only a portion of the present value of their property at the time the laws were passed, so gradual or deferred introduction of a tax amounts to a fair degree of practical compensation (Feldstein 1976a: 128).

A second manner in which taxpayers can be compensated upon the introduction of a land value tax is by the concurrent reduction or abolition of other taxes on labor or capital. That this is not a merely theoretical possibility is suggested by the fact that in some local government areas in Australia, landowners themselves have voted to adopt land value taxes in lieu of taxes on improved property (H. G. Brown 1958: 39).

A third compensatory factor peculiar to land value taxation is not often realized. Insofar as the landowner is a land-user, he does not lose by the imposition of a land value tax. Should he wish to change the site of his factory, farm, or home, the value of the site he wishes to purchase is lowered as much in proportion as that which he sells and, in this sense, he is no worse off for the tax (George 1883: Ch. 20, ¶12). Moreover, one might add that if one motive for bequests is to enable one's children to purchase land for a home, the lowered market value of land allows the testator to achieve that purpose with a reduced bequest.

Fourth, although the imposition of land value taxes tends to deflate speculative land values, if such taxes are used to reduce taxes on labor and capital, the demand for land could increase. To the extent that such increased demand for land raises its rental value, the landowners are compensated for the tax. This is, of course, a corollary of the idea that "all taxes fall upon rent," as we noted before.

Finally, it must be borne in mind that whether a change in a tax system is swift or gradual must be a political decision rather than an ethical one. One can demonstrate abstractly that a different tax system would be more efficient or is more just but a judgment as to whether change is to come and, if so, whether practical compensation will be given, must remain a political decision. Slow change may placate those who would lose by change or, on the other hand, it may allow them sufficient pecuniary motive for prolonged resistance, a resistance that would be rendered futile if change had been sudden and complete.

In sum, the “equity” argument against land value taxation is not really an argument about abstract equity or justice at all. Rather, it is a political judgment that the resistance of those who have invested under a given set of tax rules will be such as to necessitate slow rather than sudden change in those rules. This may be true or it may not but it is neither an economic nor an ethical judgment.

Chapter 8 Conclusion

8.1. A Theory Unchallenged, Yet Unexplored and Unimplemented

A tax on rent . . . cannot be shifted. The point is so universally accepted as to require no further discussion.

—E. R. A. Seligman (1921: 258)

A Theory Unchallenged

The theory of land value taxation has suffered a curious fate. That a tax on rent is a uniquely efficient tax has been overwhelmingly accepted by economists; and yet most have been content to let the rent concept be severed from the terra firma in which it was historically rooted.

It has been my contention that, from the point of view of practical tax policy, this severing of the rent concept from land has been a grievous mistake. The attempts of J. A. Hobson, E. R. A. Seligman, and Abba Lerner to find other surpluses, akin to land rent, that would be equally suitable for taxation, have led to a naive ascription to income taxes of virtues they do not have. It is now becoming generally realized that income taxes at high marginal rates have significant welfare losses. Such losses are caused by distorted choices of leisure or occupation, household production, and reduced capital formation.

A consideration of these problems suggests that it is time to reject the conceptual assimilation of land into capital and the generalization of rent to all factors of production. That strain in economic theory, initiated by J. B. Clark, interpreted rent purely as the differential principle, in contrast to the classical concept of rent as a costless income. In the long run, tax policies framed on such assumptions reveal their weaknesses; and, contrary to an oft-quoted remark of Lord Keynes, the long-run arrives every 10 to 20 years.

I have attempted to show that the rent concept can be meaningfully restricted to land, the non-produced factor of production, and that the objections to such a concept of land and its rent are not valid. The

only argument against the economic efficiency of land value that has some real substance is the fear that recurrent ad valorem land value taxation will cause premature depletion of exhaustible resources. However, I have also sought to show how land value taxation and the rent concept that underlies it can be carefully defined so as to completely avoid this objection.

A careful examination of all the objections I have found has led me to the conclusion that the theory of land value taxation has stood successfully unchallenged, so successfully that few of the objections leveled in the past against its economic efficiency can even be found in more modern writings. In fact, the three objections, dating back to J. R. McCulloch, most frequently encountered are that a land value tax is inequitable, would not raise much revenue, and cannot be administered. None of these objections comes to grips with the theory of land value taxation but, for completeness, I have analyzed them thoroughly. It is time they were laid to rest.

A Theory Unexplored

The implications of land value taxation have not been fully explored by *any* means. Virtually none of the literature on monopoly and spatial competition considers the potential of a land value tax for dissolving monopolies based upon control of superior resources or sites; nor have location theorists delved into the implications for the spatial distribution of population and economic activity of a switch from income and excise taxes towards land value taxes. Yet Henry George (1883: 215, 238–239) asserted quite specifically that a tax on land values would be super-neutral insofar as it would promote more competition and encourage a more efficient spatial distribution of population. Gaffney (1967: 367, 386) has affirmed George's claim, and Tideman (1995) has demonstrated it mathematically. Despite inherent inefficiencies in private ownership of land and mineral rights, which can only be corrected by a system of land tenure that combines individual possession with the reservation of rent to the state, super-neutrality arguments for land value taxation remain unknown to most economists.

The only reason I can perceive for this lack of interest in exploring the efficiency implications of land value taxation is the silent contempt

in which the name "Henry George" has been held by American economists since the times of F. A. Walker and E. R. A. Seligman. It was not, and is not, my purpose to pursue this aspect of intellectual history; I can only record my opinion, supported by Schumpeter (1954: 865), Blaug (1968: 91), and Collier (1975: 237–244), that such a contempt is based on a failure to attend carefully to what Henry George actually wrote. I should perhaps also remark that, doubtless due to the affinity of some of George's ideas to those of John Stuart Mill, his name has not been treated with such contempt by British economists, who have, as a rule, followed Marshall in his reluctance to accept J. B. Clark's assimilation of land into capital. In any case, the prejudices of past controversies should not be allowed to dissuade economists from careful examination of the more subtle efficiency aspects of land value taxation.

A Theory Largely Unimplemented

Although Australia and New Zealand have shown how land value taxation can work in practice, historically, the rise of income taxation at the national level has vastly overshadowed this significant contribution. In fiscal practice, Australians and New Zealanders have followed the vagaries of economic theory, rather than further develop the system of taxation they pioneered. In retrospect, this has been unfortunate, though the retention and spread of land value taxation at the local level has continued to offer proof of its superiority to the American property tax on improvements as well as land.

There are, however, signs that fiscal practice may change. In Australia in recent years, the Commonwealth Government has sought to give income tax relief to individuals by raising more revenue from the production of oil and coal, while resource rent taxes have been actively discussed. This is, of course, a patchwork process, but it is a sign that national governments can no longer frame tax policies that ignore the supply of labor or the possible emigration of capital. Like local governments, they must now start to give serious consideration to the revenue potential of an immobile tax base. There are no closed economies anymore, and the nation that uses land value taxes to reduce excise taxes and high marginal rates of income taxation may

find itself moving ahead in the international competition for economic growth.

The tax on land values is, indeed, a unique tax. This tax, the efficiency of which has been recognized for over 200 years, was the inspiration for the scientific study of economics. Yet to modern fiscal theory and practice, the tax on land values has been sadly hidden and neglected. One wonders whether Quesnay, Mirabeau, and Turgot would consider modern taxation systems much better than that of the *ancien régime*, the ills of which originally provoked them to propose the *impôt unique* as the perfect and natural tax.

Appendix 1

Can Taxing Rent Pay for Government Today?

Economists have almost universally accepted the proposition that a lump-sum tax (in the sense that no action of the taxed person can alter his liability) is ideal, and most have accepted the proposition that a tax on land values is such a theoretically ideal tax. For example, Professor Martin Feldstein, former Chairman of the U.S. Council of Economic Advisers, acknowledges a tax on unimproved land values “involves no distortion” and is clearly efficient (Feldstein 1976b: 96). Yet there has been little advocacy in economists’ discussion of tax reform for a move towards greater reliance on such taxes. One of the apparent reasons for such a lack of advocacy is the view that land revenues are inadequate to finance a modern state. Using official Australian data, we demonstrate in this appendix that that view is incorrect. We show that a land value tax could replace approximately 75 percent of government revenues.

A1.1. Traditional Understatement of Land Values

A common criticism of land value taxation has been that land rent is only 3 to 5 percent of national income and, therefore, whatever efficiency advantages such a tax would have in theory, its revenue potential is too limited to warrant further interest (Samuelson 1976: 538, 566, 733; Blaug 1968: 88). Samuelson bases his figure on the research of Denison (1962), whose work rests upon the land value statistics of Raymond Goldsmith, which are strongly criticized for undervaluation by Gaffney (1970: 176–177).

The first comment that might be made of this criticism is that it would still seem sensible to implement an efficient tax as far as possible rather than a distorting one, even if its revenue yield fell short of requirements, and other taxes were necessary.

The second comment is that the revenue potential of land value taxes has been grossly understated (Hudson 2010; Gaffney 2009b; Dwyer 2003; Cleveland 2012). The success of countries that have taxed mineral industries or collected oil rents would suggest that natural resource rents, at least, could be considerable.

There are several reasons why land rent would appear to be understated in all statistical sources.

- (1) National accounts do not pretend to measure land income as a share of national income, in the sense of the classical division of national income into rent, wages, and profits.
- (2) In this connection, it should be noted that the corporate veil is not pierced. A great deal of land income would appear to be included in corporate profits (Gaffney 1970: 159–167). The mixing of profits on physical capital investment with resource rents is common in company accounts for the obvious reason that investors do not care where their returns come from. For example, Telstra Corporation (2000: 264), the Australian telephone carrier, recorded a 23.2 percent return on assets, but Telstra did not capitalize the value of its telecommunications licenses, easements, or spectrum licenses. Hence the high rate of return may largely reflect an undervaluation of land (spectrum or easement) assets in the balance sheet.
- (3) The amount of land income to be imputed to residential dwellings is not easily available. Australia remains fortunate in having official figures that give some idea of residential land values.
- (4) Historical cost accounting principles give a downward bias to the value of land and other natural resources as shown in the accounts of business enterprises. Under historic cost accounting, assets are recorded at their purchase price, not their current market value. In the case of long-lived assets, such as land and buildings, the divergences between historic cost and market value can become considerable, especially since the land usually appreciates while buildings depreciate. The undervaluation of land and other natural resources may now occur less often than in the past, given threats of takeovers and asset-stripping, but the point retains force. A company may revalue its assets in notes outside the main accounts, implicitly attribute land value to goodwill, another asset category, or omit it altogether. Telstra (2000: 176–179) includes land and site improvements in its balance sheets at \$185 million using cost and directors' valuations, but the notes show a higher market

valuation of \$682 million. Companies do not need to include the market values of land assets in the formal accounts to repel takeovers. A note to the accounts is sufficient.

- (5) In the United States, the income tax depreciation allowance for buildings provides a strong motive to understate land value and overstate building value in property assessments.
- (6) The values of mineral, forest, fishery, air wave, and water rights often do not appear at all in either private or national accounts as such. However, there is now greater awareness of the value of natural resources included in the economic concept of land. In Australia, water rights are in the process of becoming tradable assets with explicit market values (though with some offsetting decline in the value of the land to which the rights formerly attached). Spectrum and fishery license fees are now also recognized as commercially valuable assets and may be "traded." Oil resources have long been recognized as valuable, so valuable that some countries such as Brunei and Saudi Arabia do not need any income or capital taxes at all. Those examples should make economists pause before dismissing the idea that land revenues can replace much or most other taxation as a source of public revenue.
- (7) In the United States, land values may be depressed by the capital gains tax, which, based on unindexed historic cost, represents a fine on reallocating land to its best use. To some extent, this effect may be mitigated by tax avoidance through like-kind exchanges, but this is not always possible. In countries other than the United States, transfer taxes such as stamp duties may have a similar effect in depressing land values. Australia's adoption of a capital gains tax in 1985 and endemic rises in state stamp duties have been retrograde steps that have depressed land productivity and market values in the aggregate.
- (8) Land values can also be depressed by excessive zoning restrictions and rent control legislation.
- (9) Taxes on capital and labor also reduce the demand for land; consequently, as these taxes were reduced and land value taxes increased, one would expect some increase in the base of the land value tax.

- (10) Appreciation of land values is income insofar as it represents accruals of income, as future higher rents come closer to the present. This fact is ignored by those who apply a low capitalization rate to land values in attempting to measure land income.

Both (7) and (9) raise questions of the dynamic effects of replacing income taxes and property transaction fees with a land value tax. Hong Kong has raised a significant proportion of government revenue from land lease premiums, rentals, and rates. Land revenue has allowed Hong Kong to pursue a policy of low tax rates on labor and capital. Corporate profits are taxable at 16.5 percent, after deduction of interest. Wages and salaries are taxed at a top rate of 15 percent, while capital gains and foreign-source income are not taxed at all. In effect, the risk-free return to capital is largely tax-exempt. The resulting demand from international business for operational space in Hong Kong has meant that, far from land values being depressed by being used as a public revenue source, they have grown strongly and could be tapped further to provide even lower tax rates on business and labor income.

The above reasons seem quite sufficient to suspect that the revenue potential of land value taxes is much greater than commonly believed. This suspicion is reinforced by two estimates that unfortunately are not official estimates and are very rough figures.

A1.2. Estimates from the 1970s

The first estimate is given by Cord (1979a: 59–61, 69). He suggests that in the United States land rent was \$440 billion in 1980 or about 20 percent of national income. Cord's figures are derived by rough adjustments to Conference Board figures, which, unadjusted, would suggest land income was 9.3 percent of national income in 1975. This figure is obviously underestimated for the reasons Cord gives, though his adjustments may be too high.

A second, and firmer, set of figures comes from Australia. Of all countries, Australia seems uniquely suited by history to best test the validity of such views. Australia has a long tradition of local government finance through taxation of unimproved land values, and her statistics on the subject are among the world's best. Two of her

Founding Fathers, Sir John Quick and Sir Samuel Griffith, were passionate advocates of land rents as public revenue and her capital city, Canberra, was founded on leasehold tenure so that it would be self-funding through land rent revenues. The question of the taxable capacity of Australian land (including all natural resources) is one of importance not only for Australia but may serve as a guide to other countries with less information on their potential land revenues.

This unofficial estimate, though based on official statistics, is that Australian site values alone were about \$67.4 billion in 1977 (Hardy 1977: 10). This figure excludes the value of exempt sites and other natural resources, such as forests and minerals. The adjustments to the raw data seem to be biased on the low side. Land values were rising in New South Wales at 24 percent per year at that time (Australian Bureau of Statistics 1977: 7, Table No. 2). Allowing for 15 percent inflation, and accepting a net 3 percent cash rental on valuation (after an assumed 2 percent tax rate), we obtain a rate of return from landownership of 11 percent, an unexpectedly low figure. This gives a land income of \$7.4 billion per annum, compared with personal income tax of \$11.1 billion and company tax of \$2.8 billion for fiscal year 1976–1977 (Australian Taxation Office 1979: 447). In times of monetary stringency, a lower rate of land's price appreciation may be compensated for by a somewhat higher percentage cash rental, so that the total real rate of return to landownership may be fairly stable over time.

In the late 1970s, the State of New South Wales published the following figures. See Table A1.1. The first two columns are official figures from which the latter two are derived. For comparison, the final line of the table shows an unofficial estimate of total Australian site values and federal taxes exclusive of customs duties.

For Australia as a whole, all federal taxes (excluding customs) for 1976–1977 amounted to \$15.88 billion or \$1,135 per capita (Australian Taxation Office 1979: 447).

These figures suggest that land value taxation had the potential in 1977 to provide around 47 percent ($529/1,135$) of total tax revenue in Australia. When it is noted that New South Wales official land valuations tend to be one or two years behind and slightly less than market value and that mineral values are omitted, it would appear the above estimates of annual land income per capita are minimum estimates.

Table A1.1

Population (year 1975)	Site Value (\$ million)	Site Value per capita (\$)	Annual Land Income per capita, at 11% (\$)
<i>Sydney Statistical Division</i>			
2,900,170	18,533	6,390	703
<i>Newcastle (City)</i>			
146,900	405	2,755	303
<i>Wollongong (City)</i>			
168,190	705	4,192	461
<i>Other Municipalities and Shires</i>			
1,567,770	6,050	3,859	425
<i>New South Wales (Total: excludes unincorporated area)</i>			
4,783,030	25,693	5,372	591
<i>Australia</i>			
14,000,000 (est.)	67,359	4,811	529

Source for all lines except last line: Australian Bureau of Statistics (1977: 7, Table No. 1). Site values as of December 1976. Figures for New South Wales exclude exempt property and land values in areas not covered by local government. Site value for Australia in the last line is from Hardy (1977: 10).

A1.3. Conceptual Basis for Updating Land Value Estimates

Revisiting the subject of taxable capacity of Australian land and resources in recent years, I have developed estimates shown below. In this section, I report on the continuing difficulty of developing such estimates.

I define land income to comprehend economic rent in the classical sense, that is, the income accruing to natural resources. This includes both site rents of land, and resource rents, such as mineral resources. But land income may be greater than current rental yields. Because future rents are generally expected to rise, land values generally show a rising pattern. Land income may therefore be measured by using the current yield *plus* the annual increment in land value (Gaffney 1970: 182–186).

This bears a superficial resemblance to the Haig-Simons concept of treating capital gains as income for tax purposes. However, treating an increase in the value of an asset as income can lead to double taxation if the gain is taxed annually on the basis of accrual and later as realized gain. The point is that if you are taxed on an accrual basis, you should not also be taxed on a realization basis: in practice, the interaction of capital gains tax and income tax can mean there is double taxation—a problem that does not arise for a tax on land values, which does not seek a further tax on cash rental yields (but which does tax accruing income).

Land income consists of more than capital gains plus gross current cash returns from current market rental. If today's market rental is only 3 percent of land value when market interest rates are at 10 percent, that situation only persists because future land rents are expected to be higher. The land appreciation of 7 percent needed to justify such a case really represents the maturing of future rents, just as a promissory note appreciates in value as its date for payment approaches. If a bank buys a \$100 bill of exchange for \$95 and holds it for nine months to maturity on 1 July, it will include the accrued discount of \$5 as income for the financial year in which the discount was earned not as income earned in the later financial year of receipt. In effect, by including accrual gains on land holding as land income, one is merely measuring income by leveling out income streams. Just as it is wrong to count as wholly "income" current cash flow from a depreciating asset such as a mine, it is wrong to ignore future rising cash flows in working out what is the return to landownership.

Scott (1986) provides a full review of earlier attempts to measure the value of Australian land and provides his own estimates. No attempt is made here to duplicate his review of earlier attempts, but he makes several significant observations.

He takes it as almost axiomatic that the value of land as a percentage of national wealth will tend to decline as the economy develops away from land-using primary industries. Scott (1986: 38) argues: "A declining share for the value of land in the national wealth is to be expected from a growth of other assets." The argument that the value of land is a falling share of national wealth is not, however, persuasive. Being the fixed resource, land, whether rural or urban, is the beneficiary of most

productivity gains through capitalization. Even if it were true that the value of land is a falling share of national wealth, it does not necessarily follow that land is a tax revenue source of declining potential.

First, the relative decline of primary industries has been matched by increased urbanization, which has led to increased site values for urban land. Indeed, he himself notes (Scott 1986: 22) that figures for the value of land in private hands derived from the available published figures show that "the national total for 1981/82 was 14 times that for 1960/61. This is more than three times the rise in the Consumer Price Index."

Second, a declining ratio of the value of land to total private wealth ignores the fact that the growth of private wealth may involve a degree of financial intermediation and double counting. A policy of government deficit budgeting will increase the amount of private wealth in the form of government bonds but this does not represent increased national wealth.

Third, the concept of private wealth in Australian hands does not necessarily coincide with any measurement of Australia's taxable capacity since there are Australian assets owned by overseas interests. Given that Australia is a persistent capital importer, large segments of Australian industry and natural resources are owned by overseas investors. While income tax treaties may impose some limits on Australia's ability to tax revenues from such overseas-owned Australian-based assets (depending on factors such as thin capitalization), there is no such inhibition on Australia's ability to collect revenue from land or resource rent taxation. The success of the crude oil levy, later converted to a resource rent tax, is an indicator of how overseas multinationals, such as Exxon, may pay more through land taxes than through income taxes.

Rather than attempting to measure land values as a proportion of national wealth, if one wishes to inquire into the taxable capacity of Australian land and resources, it seems more fruitful to try the direct approach. This is especially so in Australia, where there is a long tradition of land valuation. As Scott (1986: 4) notes:

Unlike the aggregates of other assets which would appear in a national balance sheet, the value of land in Australia is the subject of extensive official attention. It is a basis of taxation; and the attention it attracts has its origin in the importance of property taxes in the financing of local

government. The Commonwealth also levied a land tax for some forty years, until 1951–52 when it relinquished the tax and left the field open to the States. They were slow to enter the gap but did. However, the States remain today seemingly reluctant to make very much use of land taxation over and above the requirements of local government.

The direct approach is not without problems for several reasons.

First, land valuations may tend to be conservative due to lags in valuation and the natural desire of administrators to avoid appeals to courts over valuation disputes.

Second, valuation techniques may attribute too much value to exhausted or recouped invisible improvements or to useless improvements.

Third, land values for rating purposes may exclude sub-soil mineral, gas, or oil deposits as well as invisible land assets, such as the electromagnetic spectrum licensed to radio and television stations and mobile phone carriers. In addition, assets such as national forests that are licensed for logging may not appear as assets. As Scott (1986: 44) notes: "In addition, the [wealth] estimates published by Garland and Goldsmith . . . exclude sub-soil assets, e.g. mineral deposits."

In relation to the first issue of conservatism and lags in assessment, Scott (1986: 9–11) notes:

It would, however, impose an impossible burden on any administrative structure to value all properties in an administrative area simultaneously. Valuations are therefore made over a period for application as at a particular date. Moreover, the sales and purchases of properties on which valuations are based occur independently of and, naturally, without regard for the administrative requirements of rating authorities so that valuations for official purposes are made at varying periods after sales have taken place. Although allowance is made for such time-loss, at least to some extent, a general element of conservatism is introduced into official property valuations in these two ways. This conservatism is reinforced, moreover, by one of the very elements contributing to uniformity—the appeal system, available to ratepayers, which necessarily relies for evidence of value on past events. . . . It is clear that, in the outcome, valuations must have lagged behind values.

In relation to the second issue of non-useful or exhausted or recouped improvements, Scott (1986: 5) notes:

The rates levied by local governments are based on official valuations of land and/or land and improvements. Valuation concepts and methods have

changed over the years but valuation concepts were constant for long periods and, indeed, until recent decades. . . . However, after the middle of our own century, it became evident that the concept of unimproved capital value presented grave difficulties in application and contained a growing element of artificiality. This, and other considerations, led to official inquiries in various States into valuation concepts and practices. The outcome has been the widespread adoption of a concept of site value (sometimes designated land value) to displace the concept of unimproved capital value.

As Scott (1986: 5–6) explains:

The difficulty which had emerged in application of the concept of unimproved capital value was the virtual disappearance from land markets, as time passed, of land as defined in accordance with that concept. The definition excluded “the improvements if any thereon or appertaining thereto, and made or acquired by the owner or his predecessor in title.” . . . The difficulty was twofold—to determine whether any such improvements had been made and to find any comparable land without them which had recently been marketed. No difficulty was necessarily encountered where clearly visible improvements existed but not all improvements remained visible to succeeding generations (for example, tree felling, long regarded as a necessary improvement for maximizing monetary returns). Equally, as the country was settled, land in its virgin state became scarce and even non-existent in many localities, thus often denying to the valuer any basis for valuation of a parcel of land by comparison with transactions in land in the required, unimproved condition.

Site value is a concept whose adoption can preclude the emergence of these problems. It differs from unimproved capital value by limitation of the exclusion of improvements. Improvements, under the new concept, exclude and site value (or land value) includes such things as clearing (of timber etc); reclamation (including draining); excavating and grading; and so on Doing so eliminated, in principle, the two problems of identifying and allowing for what had often been called “invisible improvements” (Garland 1934). Nevertheless, there were still some important interpretations of the legislation governing valuation left resting on case law. (For example, the determination of unimproved value or, now, site or land value as well, taking into account the influence of surrounding improvements (Garland 1934)).

While the adoption of site value or land value gets rid of the impossible hypothetical valuation problem, one may note that it may not go far enough. Some improvements, such as tree felling, might now be seen as having detracted from the long-term productiveness of land and this is equally true of urban areas where buildings that have

outlived their usefulness have to be demolished before one can obtain a clear site for construction. If a developer pays \$4 million for a property with a building that would take \$2 million to reproduce and then spends \$1 million demolishing the building, what is the value of the land? Is it \$2 million, the value of the parcel less the costs of reproducing the (unwanted) building or is it \$4 million (the total paid for the parcel) or is it \$5 million (the cost of getting the clear land)? In other words, it is tempting, but wrong, to assume that everything on the land or done to it always and forever is a valuable improvement and that the reuse value of land is its site value; see Gaffney (1970: 173). Most structures outlive their usefulness, but the value of land as a site may grow on. Buildings depreciate in the sense of being worn out or unsuited for a given use or location, but location value does not physically wear out. The value of location rests on a spatial relationship. It may become more or less valuable depending on propinquity, but it does not wear out in same sense as improvements.

In this connection, Scott (1986: 12) argues: "There are also some special problems that valuers encounter (as well as that of allowing for differences in value due to changes in use). One of them is estimation of an unimproved or site (or land) value of a parcel of land in a fully built-up area. The problem can only be resolved by deduction of an estimated value of its improvements from the price obtained in the market for some parcel of land together with its improvements. The practice is not favored and only in these particular circumstances is the deductive method accepted in Australia in the mainland States." However, one may well argue that a land-residual valuation approach is incorrect, for it assumes the improvements are always wanted in their present state. The traditional Australian method of assessing land based on highest and best use, rather than present use, is the theoretically correct approach.

A1.4. Correcting Estimates of Land Values and Taxes in Australia

Despite all of the problems associated with compiling data on the direct assessment of land values, that approach is both more feasible and more enlightening than looking at land as a share of national

wealth. Thus, we are now able to turn to a comparison of Australian taxes and land values.

Table A1.2 compares total Australian government revenue from personal income tax and company income tax with land values as computed by Scott for the years 1967–1968 to 1977–1978. What is interesting is that even with missing land values for sub-soil assets or spectrum rights, and with conservative valuations, the ratio of total revenue to land values suggests considerable revenue potential. It is clear that the taxation of land values could entirely replace company taxes or replace most of the personal income tax. Far from being a small potential revenue source, land values are a remarkably buoyant potential source of revenue. It is particularly interesting that the rate of growth of land values has not lagged behind the growth of taxation revenue.

In some of his estimates (not shown here), Scott (1986) adds to the value of land the capitalized value of property taxes and rates on land, thereby showing the overall potential of land rent to finance government. However, I have used market-based land values (after taxes have been capitalized in lower land prices) in order to show the *additional* revenue-raising capacity of land taxes to replace *other* taxes. Even a moderate tax on land values could significantly improve the tax competitiveness of the Australian economy.

Scott's figures are now somewhat dated, and we will see below whether the glittering prospect still beckons. Before doing so, we note that Piggott (1987) and Callen (1991) of the Economic Research Department of the Reserve Bank of Australia explained why the official estimated value of land in national wealth was likely to be understated.

Piggott (1987: 65) criticized previous wealth estimates (including those of the Australian Bureau of Statistics) for not reflecting the value of land on which dwellings are built, which he sought to overcome by using price indices. Piggott (1987: 69) estimated that, as of 1985, second quarter, urban residential land and dwellings amounted to \$439.9 billion, and that rural residential wealth equaled \$102.5 billion. Half represented land values. A significant amount of land wealth would also have been included in the \$116.2 billion of business assets. Piggott noted that while the use of a capital city index for house prices may have given an upward bias, there was a bias in the opposite

direction in that "the average site value of newly completed homes is less than the average for the whole stock, since many new completions are located on the fringes of cities." The significance of Piggott's work is that it suggested previous estimates of Australian private wealth were seriously underestimated and most of that underestimation was accounted for by undervaluation of land assets. In particular, it strongly suggests that estimates of land values, such as Scott's, that are based on official valuations are likely to be substantially below current market values.

Callen (1991) reviewed Piggott's work. Instead of using a price series for dwellings based on the four capital cities of Sydney, Melbourne, Adelaide, and Brisbane, he used an index based on a weighted average of capital city and other area prices. This lowered the estimated market value of the dwelling stock. But he also argued that commercial property had been undervalued and that while the dwelling stock accounted for 52 percent of private wealth, business assets accounted for 37 percent in 1990 (Callen 1991: 1, 4). For business and real estate, he found that "in 1989, land represented 26 per cent, 33 per cent and 31 per cent of the value of the property for retail, office and industrial structures respectively" (Callen 1991: 7). Given that he used NSW Valuer-General's data on site values, these percentages seem conservative. In addition, corporate land wealth is still understated, as mining companies were excluded (Callen 1991: 5).

Callen's work suggests that business land wealth had been seriously underestimated previously, and a higher valuation would be consistent with the ratio of business income to household dwelling rent in the national accounts. As Callen (1991: 9) puts it:

The ratio of business wealth to dwelling wealth is 0.71, compared to 0.28 in the Treasury's estimates. If one thinks of GDP as the return on wealth, . . . business wealth should be about 2.5 times as large as dwelling wealth. This follows from the observation that the gross operating surplus of corporate and unincorporated business is about 2.5 times as large as imputed and actual rent, which can be thought of as the return on the dwelling stock. . . . Hence, it is likely that, despite being large relative to previous estimates, the estimate of business wealth presented here still understates its true share of total wealth.

It is also worth noting that overseas ownership of Australian business assets was estimated at \$180.5 billion out of a total of \$524.6 billion

(Callen 1991: 15). Finally, Callen (1991: 21) notes that Treasury's estimates of private wealth had excluded rural wealth and excluded the value of land from non-dwelling construction.

It is apparent that the underestimation of land values has plagued attempts to measure Australia's private wealth and that aggregate figures based on direct figures from official valuations are conservative. Further, sub-soil assets and spectrum rights are routinely omitted.

Perhaps too much attention has been focused on land as a component of private wealth. To determine the capacity of land taxes to replace other taxes, what counts is land income relative to tax collections. Foreign-owned Australian land is clearly a large part of business land values, especially if the resources sector is included. The earlier studies seem to point to three basic conclusions:

1. Land values are sufficiently high that any reasonable estimate of returns to landholding would show a large ability of land value taxation to replace personal income or company taxes.
2. Land values (even if underestimated) show a sufficiently strong growth pattern to suggest that land taxes would be reasonably buoyant revenue sources.
3. Land values have been understated due to conservative official valuations and omission of sub-soil, fishery, and spectrum assets.

A vital question that emerges in comparing tax revenues to land income is how one should measure land income. Where land values are stable, land income is the annual rental for the land. But where land is appreciating, it means that future rentals are expected to be higher. How does one annualize a rising rental to a level rental stream in order to ascertain the land income that could be available without loss of value? In the absence of reliable historical data on this point, adopting a conservative 5 percent fixed rate and adding the annual increment rate, as representing the accrual of future rentals, may be taken as approximating the full annual rent (Gaffney 1970: 182–186).

This has been done in Table A1.2, using 5 percent as a conservative rental yield. The results compare general government-sector receipts and Commonwealth taxation receipts to land values from 1964–65 to 1977–78. They indicate a very large potential land tax base.

Table A1.2
Commonwealth Government Tax Receipts & Land Values, 1964/65 to 1977/78 (\$ millions)

A	B	C	D	E	F	G	H	I	J	K
	Personal income tax	Company tax	Total taxes, fees	Land values	Annual increment of land values	Rate of increase	Current yield, 5% of land value	Total land income (F+H)	Pers. inc. tax as % of land income	Company tax as % of land income
1964/65	1,569	700	3,816	13,851			693			
1965/66	1,729	791	4,219	15,441	1,591	11%	772	2,363	73%	33%
1966/67	1,921	774	4,491	16,522	1,081	7%	826	1,907	101%	41%
1967/68	2,175	823	4,954	18,232	1,710	10%	912	2,622	83%	31%
1968/69	2,377	986	5,533	19,756	1,523	8%	988	2,511	95%	39%
1969/70	2,855	1,122	6,389	20,929	1,174	6%	1,046	2,220	129%	51%
1970/71	3,175	1,358	7,199	22,386	1,457	7%	1,119	2,577	123%	53%
1971/72	3,765	1,436	7,983	27,801	5,414	24%	1,390	6,804	55%	21%
1972/73	4,084	1,520	8,522	35,213	7,412	27%	1,761	9,173	45%	17%
1973/74	5,485	1,907	10,955	41,095	5,883	17%	2,055	7,937	69%	24%
1974/75	7,709	2,306	14,232	48,091	6,996	17%	2,405	9,401	82%	25%
1975/76	9,213	2,463	17,003	61,583	13,492	28%	3,079	16,571	56%	15%
1976/77	11,047	2,753	19,813	68,413	6,830	11%	3,421	10,250	108%	27%
1977/78	12,118	3,010	21,549	73,613	5,201	8%	3,681	8,881	136%	34%

Sources: Reserve Bank of Australia, Australian Economic Statistics 1949-1950 to 1994-1995, Table 2.17, pages 92-93.
R. H. Scott, The Value of Land in Australia, Table 7a, p. 28.

A1.5. Australian Estimates of Land Values from the 1990s

Drawing upon and extending data used in Table A1.2, I have constructed Table A1.3 as a much longer series from 1910–1911 to 1998–1999, showing the growth of Australian tax revenues and land income over most of the 20th century. (For space reasons, the table includes only one year per decade from 1910 to 1950.) Table A1.3 builds on the notable work of Scott, Herps, Coleman, and others, studies that have been sponsored by, undertaken for, or adopted by the Reserve Bank of Australia, the Commonwealth Grants Commission, and the Australian Bureau of Statistics. The methodology of Table A1.3 is set out in Dwyer (2003) and involves both adjusting land valuations for lags and smoothing increments to land values. The results are remarkable.

Before World War II, the growth of land values and tax revenues tended to be more restrained, probably reflecting the supremacy of the gold standard, Depression, and a horror of deficit financing by governments. In the post-World War II period, the growth of land values and land income has outstripped the growth of tax collections, even as Keynesian deficit financing and the growth of the welfare state generated a larger public sector.

While at times it may have appeared that land was shrinking as a component of national wealth or income, that may have been an illusion due to financial intermediation and multiplication of gross claims in the economy. Table A1.3 shows the growth of Australian land income more than holding its own relative to tax revenues, even though tax revenues have increased considerably as a percentage of national income. Chart A1.1 shows the growth of imputed land income relative to the combination of personal income and company taxes, clearly showing that land has provided a sufficient tax base since 1980 to replace both of those categories of taxation.

At first sight, this is a puzzle. It might be argued that land income should decline in relation to tax revenues for two reasons. First, there has been a shift over the past century away from land-based industries such as agriculture and mining to manufacturing and, later, service industries, which are not land-intensive. Second, taxes such as income tax are based on a broader base of economic activity than land, so the

Table A1.3
 Australian Taxation Receipts Compared to Land and Resource Values, 1910–1911 to
 1998–1999 (\$ million)

Fiscal year	Total taxation		Personal income tax		Company tax		Value of land	Current yield	Accrual yield	Land income smoothed	Pers. inc. tax % land income	Company tax % land income		Total tax % land income		Pers. & comp. tax % land inc.
	A	B	C	D	E	F						G	H	I	J	
	\$m	\$m	% GDP	\$m	\$m	\$m	\$m	\$m	\$m	\$m	D as % of I	E as % of I	B as % of I	D+E as % of I		
1910/11	44		6			862	43	17								
1919/20	117		9			1,132	57	22		78.9			149%			
1929/30	209		13			1,933	97	38		134.7			155%			
1939/40	318		16			1,711	86	34		119.2			267%			
1949/50	1,160		22	392	167	2,758	138	258		396.2	99%	42%	293%			141%
1950/51	1,620		23	722	181	3,219	161	302		462.4	156%	39%	350%			195%
1951/52	2,058		27	800	302	3,578	179	335		514	156%	59%	400%			214%
1952/53	2,029		24	775	334	3,856	193	361		553.9	140%	60%	366%			200%
1953/54	2,085		22	788	268	4,388	219	411		630.3	125%	43%	331%			168%
1954/55	2,184		22	720	343	4,885	244	458		701.7	103%	49%	311%			152%
1955/56	2,346		22	773	373	5,321	266	498		764.4	101%	49%	307%			150%
1956/57	2,588		22	807	432	5,884	294	551		845.2	96%	51%	306%			147%
1957/58	2,758		23	870	429	6,518	326	582		907.5	96%	47%	304%			143%
1958/59	2,736		21	777	437	7,327	366	654		1,020.1	76%	43%	268%			119%
1959/60	3,030		21	884	456	8,168	408	729		1,137.3	78%	40%	266%			118%
1960/61	3,408		22	1,037	575	9,364	468	836		1,303.7	80%	44%	261%			124%

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Table A1.3 Continued

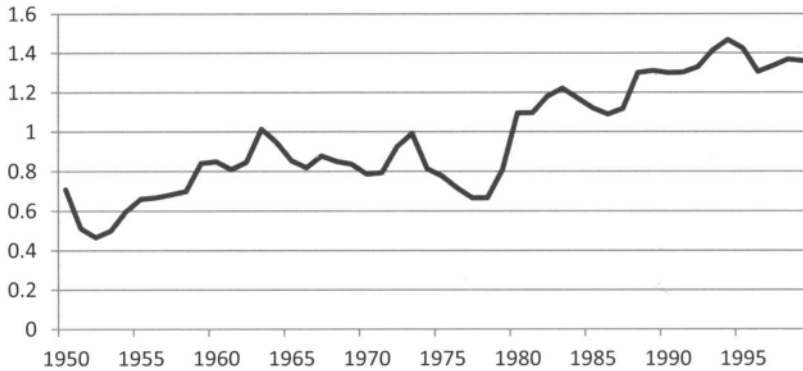
Fiscal year	Total taxation		Personal income tax		Company tax		Value of land		Current yield		Accrual yield		Land income smoothed		Pers. inc. tax % land income		Company tax % land income		Total tax % land income		Pers. & comp. tax % land inc.	
	A	B	C	D	E	F	G	H	I	J	K	L	M	D as % of I	E as % of I	B as % of I	D+E as % of I					
	\$m		% GDP	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	%	%	%	%	%	%	%	%
1961/62	3,458		22	1,074	560	9,933	497	886	1,383	78%	41%	250%	118%									
1962/63	3,564		21	1,083	514	11,616	581	1,037	1,617.3	67%	32%	220%	99%									
1963/64	3,976		21	1,271	580	12,589	629	1,123	1,752.7	73%	33%	227%	106%									
1964/65	4,620		23	1,569	700	13,902	695	1,241	1,935.6	81%	36%	239%	117%									
1965/66	5,090		24	1,729	791	14,815	741	1,322	2,062.7	84%	38%	247%	122%									
1966/67	5,464		23	1,921	774	16,980	849	1,515	2,364.1	81%	33%	231%	114%									
1967/68	6,047		24	2,175	823	18,309	915	1,634	2,549.1	85%	32%	237%	118%									
1968/69	6,760		24	2,377	986	20,200	1,010	1,802	2,812.5	85%	35%	240%	120%									
1969/70	7,742		24	2,855	1,122	22,450.9	1,123	2,003	3,126	91%	36%	248%	127%									
1970/71	8,631		25	3,175	1,358	25,811.3	1,291	2,303	3,594	88%	38%	240%	126%									
1971/72	9,863		25	3,765	1,436	34,511.6	1,726	3,079	4,805	78%	30%	205%	108%									
1972/73	10,819		24	4,084	1,520	39,883.6	1,994	3,559	5,553	74%	27%	195%	101%									
1973/74	13,761		26	5,485	1,907	43,204.4	2,160	3,855	6,015	91%	32%	229%	123%									
1974/75	17,774		28	7,709	2,306	55,801.3	2,790	4,979	7,769	99%	30%	229%	129%									
1975/76	21,420		28	9,213	2,463	59,979.7	2,999	5,352	8,351	110%	30%	257%	140%									
1976/77	24,906		28	11,047	2,753	66,001.4	3,300	5,889	9,189	120%	30%	271%	150%									
1977/78	27,077		28	12,118	3,010	72,395.6	3,620	6,460	10,080	120%	30%	269%	150%									
1978/79	29,543		27	12,791	2,943	91,259.5	4,563	8,143	12,706	101%	23%	233%	124%									
1979/80	34,388		28	15,033	3,303	14,421.5	7,211	12,868	20,079	75%	17%	171%	91%									

Table A1.3 Continued

Fiscal year	Total taxation		Personal income tax		Company tax		Value of land		Current yield		Accrual yield		Land income smoothed		Pers. inc. tax % land income		Company tax % land income		Total tax % land income		Pers. & comp. tax % land inc.	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
	\$m	% GDP	\$m	\$m	\$m	\$m	\$m	\$m	\$m	% of I	% of I	% of I	% of I	\$m	% of I	% of I	% of I	% of I	% of I	% of I	% of I	% of I
1980/81	40,566	29	17,532	4,579	17,4205	8,710	15,544	24,254	72%	19%	167%	91%										
1981/82	47,098	30	21,205	4,902	22,1300	11,065	19,746	30,811	69%	16%	153%	85%										
1982/83	51,729	30	22,943	4,693	24,2227	12,111	21,613	33,725	68%	14%	153%	82%										
1983/84	56,746	29	24,671	4,471	24,5200	12,260	21,879	34,139	72%	13%	166%	85%										
1984/85	66,313	31	29,256	5,497	27,9700	13,985	24,957	38,942	75%	14%	170%	89%										
1985/86	73,608	31	32,673	6,004	30,2600	15,130	27,000	42,130	78%	14%	175%	92%										
1986/87	82,995	31	38,000	6,573	35,7600	17,880	31,908	49,788	76%	13%	167%	90%										
1987/88	94,476	32	41,811	8,648	47,1500	23,575	42,071	65,646	64%	13%	144%	77%										
1988/89	106,137	31	47,433	10,106	54,1700	27,085	48,335	75,420	63%	13%	141%	76%										
1989/90	115,408	31	49,928	12,784	58,5838	29,292	52,273	81,565	61%	16%	142%	77%										
1990/91	119,179	32	50,156	14,253	60,2102	30,105	53,724	83,829	60%	17%	142%	77%										
1991/92	115,627	30	46,830	14,091	58,1976	29,099	51,929	81,027	58%	17%	143%	75%										
1992/93	118,724	29	47,528	14,237	62,7330	31,367	55,975	87,342	54%	16%	136%	71%										
1993/94	126,146	30	50,571	13,477	67,5164	33,758	60,243	94,002	54%	14%	134%	68%										
1994/95	139,350	31	54,635	16,142	72,3875	36,194	64,590	100,784	54%	16%	138%	70%										
1995/96	147,827	31	60,414	18,252	73,8025	36,901	65,852	102,754	59%	18%	144%	77%										
1996/97	159,668	31	66,453	19,173	82,0648	41,032	73,225	114,257	58%	17%	140%	75%										
1997/98	167,919	31	70,822	19,406	88,7076	44,354	79,152	123,506	57%	16%	136%	73%										
1998/99	177,884	31	76,728	20,734	95,2908	47,645	85,026	132,671	58%	16%	134%	74%										

Chart A1.1

Australia: Taxable Capacity of Land (Ratio of imputed land income to sum of personal income tax and company tax)



capacity of land income to replace other taxes should logically be declining.

On closer reflection, the apparent contradiction of these arguments by the data seems explicable. First, it is not the *quantity* of land used but its *value* that counts in measuring a land income tax base: service industries may not use broad acres, but city office blocks sit on very valuable land.

Second, much of the income tax base is indirectly land related in origin: corporate accounting profits (e.g., for mining companies) do not distinguish between capital and land returns. (That is not their purpose.) Capital gains are often based on real estate, either directly or through holdings in companies, mutual funds, or pension funds.

Third, there is another reason that has often escaped attention for land income to keep up with or even exceed tax revenue. Public spending adds to land values and the demand for land. It has long been recognized (Hotelling 1938: 300; Vickrey 1977: 349; Harriss 1973) that tax-financed government spending on physical infrastructure such as roads, electrification, and water systems adds value to land. To the extent that such spending is justified on cost-benefit grounds, one would expect land values to rise by more than the expenditure. But

it is less well recognized that government *social* spending can also be capitalized in land values.

When tax revenue is paid as unemployment benefits or as age pensions, including, *a fortiori*, targeted payments for rent subsidies, it inevitably underpins a level of demand for residential real estate that also affects commercial land values as well. For example, the exemption of family homes from social security income and assets tests increases residential land values by subsidizing the holding of properties off the market. In many cases, the age pension might be seen as a subsidy to someone who inherits a house, rather than a person who never lived to enjoy his or her wealth. Further, to the extent that government social spending is usually available to citizens or residents of a country, one would expect little leakage outside national borders. To the extent that aged people can migrate and welfare pensions become portable, one can imagine Australian tax revenues propping up land values in Italian villages or U.S. tax revenues propping up land values on the Australian coast, but such migration and portability is the exception.

At the same time, owner-occupied residential land is outside the scope of income tax, but not necessarily rates or land taxes. Hence, the tax base excludes part of land income, while some tax revenue pushes up land values. Given the importance of residential land in overall land value statistics, such phenomena may explain why land income has risen so strongly in line with tax revenues.

Fourth, land is well recognized as a natural hedge against inflation. As taxes have risen and the value of money fallen over the post-World War II period, the holding and retention of income-producing land has been the best defense for many investors against the combined ravages of taxation and inflation. The impetus for investors to “buy and hold” real estate is a powerful equal and opposite reaction that helps explain the parallel growth of land values.

Ultimately, the figures speak for themselves. In 1998–1999, the following figures emerge:

Total Australian taxation	\$177.9 billion
Total individual income tax	\$76.7 billion
Total company tax	\$20.7 billion
All other Australian taxes	\$80.5 billion
Smoothed land income	\$132.7 billion

Even this appears to be an underestimate. In addition to land and sub-soil assets, there are spectrum, native forest, and fisheries resources. A tentative estimate, using a common accrual factor of 8.92 percent plus a running yield of 5 percent (totaling 13.92 percent), shows for 1998–1999:

Asset class	Value (\$ billion)	Income (\$ billion)
Land ⁵⁴	822.7	
Sub-soil assets	130.2	
<i>Subtotal</i>	952.9	132.7
Spectrum, etc. ⁵⁵	2.7–58	0.4–8
Native forests ⁵⁶	2.5	0.4
Fisheries ⁵⁷	0.8	0.1
<i>Total</i>	958.9–1,014.2	133.6–141.2

These results demonstrate that Australia could provide at least 75 percent of its tax revenues from land and other natural resources (\$134 billion/\$178 billion). This definitively refutes the assertions by Samuelson (1976) and other economists that land value taxation provides too small a tax base for serious consideration. Land value taxation has the potential to finance a large portion of government operations, even after a prolonged increase in the role of the state. That is true in Australia, so it should be true in other countries, such as the United States and Japan, in which no more than one-third of GDP is taxed.

Further, to the extent that some taxes are already capitalized in lower market values for privately-held land, the 75 percent estimate understates the capacity of land income to replace existing taxes.⁵⁸ It is impossible to determine if the “single tax,” in which a tax on land values replaces *all* other taxes, is technically possible or not. To the extent that higher incomes and higher rents would be generated by removing the excess burdens imposed by other taxes, the base for a land value tax would increase accordingly. It is not, however, necessary to determine in advance what the exact taxable capacity of land is. Suffice it to say that it is much larger than has generally been recognized in the economics profession.

Appendix 2

Administrative Simplicity

One of the claims that has been made by critics of land value taxation is that it would be very difficult to administer. Among those critics, perhaps the most well known is Friedrich Hayek, who argues that it is hard to objectively separate the value of land that arose from communal influences from the value created by the individual owner. In a lengthy discussion of urban planning, Hayek ([1960] 1972: 349–353) recognizes that the price system allocates land in cities efficiently only to the extent that gains and losses of land value from public infrastructure and privately-produced externalities can be compensated properly. In that context, Hayek ([1960] 1972: 352–353) introduces land value taxation as a “seductive and plausible” solution, only to dismiss it as administratively unfeasible:

There still exist some organized groups who contend that all these difficulties could be solved by the adoption of the “single-tax” plan, that is, by transferring the ownership of all land to the community and merely leasing it at rents determined by the market to private developers. This scheme for the socialization of land is, in its logic, probably the most seductive and plausible of all socialist schemes. *If the factual assumptions on which it is based were correct*, that is, if it were possible to distinguish clearly between the value of “the permanent and indestructible powers of the soil,” on the one hand, and, on the other, the value due to the two different kinds of improvements—that due to communal efforts and that due to the efforts of the individual owner—the argument for its adoption would be very strong. Almost all the difficulties we have mentioned, however, stem from the fact that no such distinction can be drawn with any degree of certainty. [emphasis added]

This argument is spurious, and it is hard to understand why Hayek took such a sharply negative position after acknowledging the theoretical advantages of land value taxation. Let us, therefore, examine Hayek’s statement in detail.

First, Hayek confuses land value taxation with land nationalization and public management. He erroneously claims that the single tax would operate by “transferring the ownership of all land to the community and merely leasing it at rents determined by the market to private developers.” In fact, single-taxers would leave all titles to land

and even its possession in private hands. Certainly, Henry George (1879: BK VIII, Ch. 2, ¶10, 12) had no plans to appropriate any land, let alone all land to the state:

[Confiscation] would involve a needless extension of governmental machinery—which is to be avoided . . . I do not propose either to purchase or to confiscate private property in land. The first would be unjust; the second, needless. Let the individuals who now hold it still retain, if they want to, possession of what they are pleased to call *their* land. Let them continue to call it *their* land. Let them buy and sell, and bequeath and devise it. We may safely leave them the shell, if we take the kernel. *It is not necessary to confiscate land; it is only necessary to confiscate rent.* [emphasis in original]

Single-taxers want to only socialize rent (whether as current income or as imputed value), and privatize the returns from capital and labor. It is the “kernel”—the so-called unearned increment—that Georgists want to recycle back into public coffers. But doing so would *not* require transferring of the “shell” (title to the land) to the government. This avoids the danger that public officials might allocate the land to corrupt developers. It is totally up to the individual owners of the land to creatively decide when and how they will use the land in order to discharge any land tax liability. Indeed, if the state owned all the land, it would result in the absurd situation that the government would be taxing itself.

Second, Hayek does not appear to be saying that it is impossible to separate land value from improvement value, as a hasty reading might suggest. After all, assessors do this all the time, if not always with absolute precision, at least well enough to meet normal statutory requirements. Presumably, where they fall short, the answer is improved private training, staffing, and technical equipment (Andelson 2000: 112). Rather, Hayek appears to demand an almost mathematical precision in valuation for all practical purposes. But as Jürgen G. Backhaus (1997) has observed:

Hayek’s claim, despite the forceful wording in which it is presented, is in fact vacuous. Any tax legislation has to be enforceable and actionable in a court of justice . . . Since the degree of certainty Hayek requires for his analysis is different from the degree of certainty that actionable tax assessments require, it is sufficient to point to empirical scenarios in which a Georgian tax scheme is being implemented and where such taxes are being paid.

Furthermore, as Henry George (1879: BK VIII, Ch. 4, ¶10) pointed out, perfection is by no means required: "Absolute accuracy is impossible in any system, and to attempt to separate all that the human race has done from what nature originally provided would be as absurd as impracticable."

Third, the free market, much loved by Hayek, is already separating, with relative certainty, the value created by the community versus the value created by the efforts of individual owners. The sale value of raw land on the open market provides some evidence of the capacity to make such judgments. More significantly, insurance appraisers must separate the value of a house and other improvements from the value of the underlying land in order to calculate an insurance premium. Thus, as Fred Harrison (2006: 237) has observed:

Most people would recognise how this separation occurs in relation to their own homes. They pay insurance on the value of the bricks and mortar. The premium is for a value that excludes land (which will never be stolen by a thief or burnt down by an arsonist). And in countries like Denmark, Australia and New Zealand, which employ direct charges on land, fiscal authorities have [little] difficulty in agreeing with owners about the value that is liable to taxation.

Fourth, even if valuers make incorrect or somewhat imprecise estimates, the effect of a land tax still appears superior to some other taxes in existence. As Chapman (2009: 576–577, 585) explains:

Benefits of land value taxation persist even in cases where land values are estimated with error The imprecision of land value estimates does not negate the potential advantages of a land value tax. This conclusion applies regardless of the source of the error as well as the magnitude of the error. For the case characterized by a Cobb-Douglas production function, a land value tax will have at most the distortion effects of a property tax of equivalent rate, even with the worst possible land value assessment errors. The less productive capital is relative to land, the more advantage the error-prone land tax will have over the property tax. That is, by applying a land value tax, one can likely avoid the misallocation of resources imposed by a conventional property tax even when the errors of land value estimation are large.

Indeed, not only would such a poorly administered land tax generate less market distortions than a conventional property tax, but it would appear to be more progressive than a conventional property tax. For

example, Bowman and Bell (2008: 593) argue that the greatest benefits of a shift to land value taxation would go to those areas with lowest incomes and highest poverty rates. Plummer (2010: 63) concurs that “a LVT [land value tax] would be slightly more progressive than a property tax.”

It should be clear that criticism of land value taxation as administratively infeasible is off the mark. Even a critic such as economist Mark Blaug (1968: 88), while doubting the yield of land value taxation, nevertheless admits that its administration is no obstacle:

The administrative difficulties of putting a Georgian tax scheme into action are no greater than those involved in distinguishing income and capital under the progressive income tax. . . . Ultimately, of course, the issue rests on the violability of property rights.”

I now propose to explain why the administration of a land value tax could be even simpler than Blaug concedes.

I suggest that land value taxation is administratively more efficient than the income tax for the following reasons:

- (1) Land value taxation is in rem, not in personam. This immediately gives the following administrative advantages:
 - (a) The taxable object is visible. It cannot be concealed by accounting maneuvers or by the cash and barter transactions of the underground economy.
 - (b) Under a uniform ad valorem land value tax, the problem of the taxpaying unit disappears. Administrators do not have to worry about income-splitting via partnerships, trusts, intra-family asset transfers, and so on. In contrast, such problems consume a great deal of legal and administrative effort under a so-called progressive income tax.
 - (c) The tax haven problem disappears. Foreign exchange transactions, transfer pricing, and double tax treaties all pose problems of income tax avoidance and create administrative problems for income tax officials yet they are irrelevant to land value taxation.
 - (d) Most importantly, land value taxation does not require the wholesale invasion of personal financial privacy that attempts to enforce worldwide residence taxation do. Land values can

be placed on public registers and require no investigation into the taxpayer's assets or income, either onshore or offshore. It is profoundly shocking that in 2014 at the February G20 meeting in Sydney, Australia, finance ministers from around the world endorsed an OECD-sponsored system of automatic information collection and exchange from banks, stockbrokers, and other financial institutions. People's private information concerning income and assets will become available to hundreds of bureaucrats at home and abroad. In time, one can see that this kind of centralized data collection and information exchange will make taxpayers targets for identity theft, extortion, and kidnapping threats. These things have already happened in some countries where tax data have fallen into the hands of criminals. Adam Smith's prescient objections to vexatious inquisitions spring to mind.

- (2) Under an income tax all capital assets must be valued for depreciation purposes. Thus, in the United States, land and buildings are supposed to be valued separately for income tax purposes. Under land value taxation, only a few capital assets have to be allowed for—namely, those capital improvements that are sunk in the soil, such as drainage, clearing, and fertilizing. Depreciation schedules can be set up for the unexhausted value of these types of capital assets and after, say, 15 years (as in New South Wales, Australia) they could be regarded as exhausted. It must be remembered that every capital asset depreciates. Even dams silt up and the roadbeds of the American railroads have deteriorated considerably since World War II.
- (3) In comparison with the mass appraisal of heterogeneous improved parcels under a system that taxes both buildings and land, the mass appraisal of land values alone is much easier. The continuity of value per square foot enables checking and extrapolation of bare land values (obtained from demolition purchases) over several parcels. This is not valid for property taxes on buildings. The administrative superiority of land value taxation over property taxation (of land and buildings together) is evidenced by the ability of the New South Wales Valuer-General to

revalue the Sydney metropolitan area every two years instead of every six, once he was relieved of the necessity to give valuations of improvements (Hutchinson 1979: 17).

- (4) In the United States and now, sadly, Australia the capital gains tax operates as a variable transfer tax on real estate sales. To the extent that this inhibits sales of real estate for demolition and redevelopment, the authorities have only themselves to blame for the alleged lack of market data for estimating land values. When Australia had no capital gains tax as such, a casual impression was that demolition and redevelopment was more frequent than in the United States, a tendency aided by the fact that few areas then levied taxes on improvements.

Unfortunately, Australian states and territories in recent decades have increased stamp duty rates, and the federal government has increased the capital gains tax, both of which affect rented residential properties. The net effect of these transfer taxes has been to make housing more expensive and to reduce turnover in the land market. There may have, therefore, been a decline in available data for assessing land values due to the more restricted turnover. Part of the problem with getting data on land values may be self-inflicted.

- (5) Land valuation can be aided by self-assessment. This was done in New South Wales in 1895 (Chomley and Outhwaite 1909: 183–185). To ensure accurate self-assessment the following checks could be used:
- (a) In New South Wales, appeals can be made to a special court, with costs going against the losing party (Chomley and Outhwaite 1909: 185).
 - (b) The taxing authority could be given the right to buy out the owner at his valuation, subject to judicial processes, a practice allowed for in the 1910 Australian Federal Land Tax (Bird 1960: 391). This would check downward bias in self-assessments.
 - (c) Conversely, the taxpayer could be given the right to ask for a court order that the taxing authority buy him out at their valuation if he thinks it too high. This protection against

arbitrary abuse by the taxing authority was provided for in New Zealand (Scheftel 1916: 69).

- (d) Bank lending regulations could restrict mortgages to taxation values. This would discourage downward bias in self-assessment by owners who might have in mind the possibility of borrowing on the security of their property. Land resumptions under eminent domain could also use the assessed values for tax purposes.
- (e) Assessors for the taxing authority could check insurance valuations for buildings since insurance companies have a vested interest in not being at risk for more than the market value of the improvement on a site. In practice, this would probably not be necessary except in disputed valuations.

Such provisions would seem to offer a workable combination of self-assessment and administrative valuation with appropriate checks against both fraud on the revenue and abuse by the taxing authority. In fact, fraud is virtually impossible in a simple uniform land value assessment system. It is unheard of in Australia in relation to municipal land taxes.

- (6) The cost of compliance and of administration of a land value tax system may be comparable to or better than an income tax or property tax system. An income tax has a cost of collection of around 1 percent of revenues (Australian Taxation Office 1979: Table "Cost of Collection of Taxes Administered by Taxation Office"). By contrast, the cost of collecting the Australian Commonwealth Land Tax of 1910 was 1.25 percent (Scheftel 1916: 86). This was a federal tax from 1910 to 1952, comparable in scope to a national income tax. However, it should be noted:
 - (a) The total cost of administration in 1910 was 3.5 percent, but that included the nonrecurring cost of setting up the land value tax system (Scheftel 1916: 86, 88).
 - (b) The Australian federal land tax was on a progressive, not proportional, basis, which made its administration more complex and costly than a uniform ad valorem tax would have been (Bird 1960: 392).

- (c) The average tax rate of 1.2 percent took about 25 percent of the income from landownership (assuming an interest rate of 5 percent and no land appreciation). With a higher tax rate and fewer loopholes for tax avoidance, the costs of collection and administration would have been a smaller percentage of total revenues.
 - (d) Recorded administrative costs of income taxes do not count the costs of taxpayer compliance, which include the costs of company accounting systems, lawyers, tax agents, and so on. When these costs are contemplated, the administrative costs borne by both public and private sectors together may be less for a uniform ad valorem land value tax than for income tax systems.
- (7) Land value taxation is more administratively robust because administrative errors in valuation do not create economic excess burdens. The tax is still a “lump-sum” tax that does not distort economic decisions.
- (8) From a litigation point of view (a subject on which the author has expertise as a practicing tax lawyer), disputes over land values are far simpler to resolve than intricate questions in income tax or general sales tax (GST) litigation.
- (9) Most importantly, preparation of estimates of government revenue could be much easier with a land value tax than an income tax.⁵⁹ The authorities could simply set the tax rate annually, based on the preceding year's valuations. The yield of the tax would then be known with certainty and could be collected on an installment basis throughout the fiscal year. Such a predictable and regular tax inflow would reduce problems of monetary management caused by inaccurate estimates of deficits and seasonality in income tax collections.

The above considerations suggest that, not only is land value taxation administratively feasible, but it could have significant administrative advantages that have escaped attention (Netzer 1966: 198–204; Woodruff and Ecker-Racz 1969: 180–181).

Appendix 3

Socially Optimal Land Speculation

To see precisely how land value taxation is neutral with respect to optimal speculation, let us start with the argument that it is not.

The basic argument of Shoup, Skouras, Bentick, and Smith, discussed in Section 5.1, is that we have land that may be developed now ($t = 0$) to yield a rental, R_0 , or later ($t = h$) to give a rental, R_h , where R_h is greater than R_0 . Thus land values would be

$$V_0 = \frac{R_0}{i} \text{ and } V_h = \frac{R_h}{i}$$

We will be indifferent between the two land use patterns if their present values are the same, i.e., if

$$V_h = (1 + i)^h V_0 \tag{1}$$

Now if a land value tax, t , is levied,

and since $V' = \frac{(R - tV')}{i} \therefore V'(i + t) = R \therefore V' = \left(\frac{i}{i + t}\right)\left(\frac{R}{i}\right)$

$$\therefore V' = \left(\frac{i}{i + t}\right)V$$

capitalization of the tax gives

$$V'_h = \frac{i}{i + t} V_h \text{ and } V'_0 = \frac{i}{i + t} V_0$$

where V'_h and V'_0 are after-tax market values.

Hence from Equation (1), we obtain

$$V_h = (1 + i)^h V'_0$$

However, it is argued that to remain indifferent we must have

$$V'_h = (1 + i + t)^h V'_0$$

to defray the holding charge added on by the recurrent tax. Since this is not so, Shoup, Skouras, Bentick et al. conclude that a land value tax forces development sooner.

The objections to this argument are that:

- (1) It has assumed land is irrevocably committed to one use and cannot be salvaged for another. This assumption has validity in

the case of exhaustible resources. As shown in Section 6.7, a depletion charge must be coupled with a recurrent ad valorem land value tax to prevent such a tax causing a bias towards premature uses.

- (2) It forgets that land can only bring forth a rent if capital has been married to it; if land could yield its rent without capital being committed to it, why would land ever be withheld?
- (3) The argument ignores the fact that land will be reassessed later as though vacant—premature development does not freeze the assessment, which will be revised on the basis of highest and best uses that hasty action has precluded.

Let us now consider a reformulation of the argument that incorporates these factors. As before, optimal behavior demands the equating of the present value of two choices:

- (A) develop the land now, receiving rent, R_0 , and salvage it by demolition of the building after T periods
- (B) hold the land vacant till time h , and get a better rent, R_b , from time h onwards ($T > h$)

We must thus balance the earlier rent, secured by choice (A), against the higher rent available in the period ($T-h$) under choice (B).

Pre-Tax Choices

- (A) Present value of choice (A)

$$PV_A = \sum_{n=0}^T \frac{(R_0 + iK_A + \Delta K_A)}{(1+i)^n} - K_A + \frac{R_b}{i(1+i)^T}$$

The sunk capital, K_A , is recovered as a terminable annuity over T periods ($iK_A + \Delta K_A$) and then the land is free for the better use, R_b .

- (B) Present value of choice (B)

$$PV_B = \frac{R_b}{i(1+i)^b}$$

We lose by holding the land vacant till time h , but we gain by getting $R_b - R_0$ from time $n = h$ to $n = T$. We are indifferent when $PV_A = PV_B$. This is the condition for optimal speculation. The question is: Does this

indifference between choices hold after a land value tax is imposed? That is, does $PV'_A = PV'_B$?

Post-Tax Choices

We start with $V_0 = \frac{R_0}{i}$; $V_b = \frac{R_b}{i}$; $V' = \left(\frac{i}{i+t}\right)V$, while V'_n rises from V'_0 to V'_b as time passes from $n = 0$ to $n = h$, as the land is reassessed annually.

(A) The present value of choice (A) after the tax is thus given by

$$PV'_A = \sum_{n=0}^b \frac{(R_0 + iK_A + \Delta K_A - tV'_n)}{(1+i)^n} + \sum_{b+1}^T \frac{(R_0 + iK_A + \Delta K_A - tV'_b)}{(1+i)^n} - K_A + \frac{V'_b}{(1+i)^T}$$

(B) Since the holding charges during the period of vacancy are offset against the earlier increased value, the present value of choice (B) after the tax is:

$$PV'_B = \sum_{n=0}^b \frac{(-tV'_n)}{(1+i)^n} + \frac{(V'_b)}{(1+i)^b}$$

Given that $PV_A = PV_B$, we now have:

$$PV'_A = \sum_{n=0}^b \frac{(-tV'_n)}{(1+i)^n} - \sum_{b+1}^T \frac{(tV'_n)}{(1+i)^n} + \frac{V_b}{(1+i)^b} - \frac{V_b}{(1+i)^T} + \frac{V'_b}{(1+i)^T}$$

That is,

$$PV'_A = PV'_B - \frac{V_b}{(1+i)^b} - tV'_b \times \sum_{b+1}^T \frac{1}{(1+i)^n} + \frac{V_b}{(1+i)^b} - \frac{V_b}{(1+i)^T} + \frac{V'_b}{(1+i)^T}$$

That is,

$$PV'_A = PV'_B + V'_b \left[\frac{1}{(1+i)^T} - \frac{1}{(1+i)^b} \right] - V_b \left[\frac{1}{(1+i)^T} - \frac{1}{(1+i)^b} \right] - tV'_b \sum_{b+1}^T \frac{1}{(1+i)^n}$$

$$\text{So } PV'_A = PV'_B + (V'_b - V_b) \left[\frac{1}{(1+i)^T} - \frac{1}{(1+i)^b} \right] - tV'_b \{S_T - S_b\}$$

where S_T and S_b are the sum to T and b terms, respectively, of the geometric series $\frac{1}{(1+i)^n}$

$$\text{Remembering that, for a geometric series, } S_n = \frac{a(1-r^{n+1})}{1-r}$$

$$\text{Hence } S_T - S_b = \frac{r^{b+1} - r^{T+1}}{1-r} \text{ where } r = \frac{1}{(1+i)}$$

$$\text{Now: } S_T - S_b = \frac{1+i}{i} \left[\frac{1}{(1+i)^{b+1}} - \frac{1}{(1+i)^{T+1}} \right]$$

Hence we get

$$PV'_A = PV'_B + (V'_b - V_b) \left[\frac{1}{(1+i)^T} - \frac{1}{(1+i)^b} \right] - tV'_b \left\{ \left(\frac{1+i}{i} \right) \left[\frac{1}{(1+i)^{b+1}} - \frac{1}{(1+i)^{T+1}} \right] \right\}$$

and

$$PV'_A = PV'_B + (V'_b - V_b) \left[\frac{1}{(1+i)^T} - \frac{1}{(1+i)^b} \right] - \frac{t}{i} V'_b \left[\frac{1}{(1+i)^b} - \frac{1}{(1+i)^T} \right]$$

$$\text{and } V'_b = \frac{i}{(i+t)} V_b$$

$$\text{Now } V'_b - V_b = V'_b \left[1 + \frac{i+t}{i} \right] = -\frac{t}{i} V'_b$$

On substituting, the latter two terms cancel out and we get

$$PV'_A = PV'_B$$

Since the equivalence of the choices is preserved, we can then conclude that land value taxation is in fact neutral with respect to optimal speculation. Max Neutze (1969: 120–122) gives an arithmetic example, taking account of reassessment, for this conclusion, but he does not distinguish between sound and unsound speculation. A land value tax encourages planning of land use timing to maximize present value of actual rental streams and deters suboptimal

speculation. This solves the problem that still worried H. G. Brown (1928b: 385–386) and Ellickson (1966: 137). Henry George was, therefore, correct in his intuition that land value taxation could be better than neutral.

Appendix 4

How Public Projects Affect Land Values: Sources

It is a staple of the urban economics literature that access to infrastructure and public amenities—railway stations, roads, bridges, or schools—is capitalized in higher land values. Similarly, proximity to disamenities or crime lowers land values. Even the anticipation of a future project has a current effect on land values. Finally, some studies conclude that land value taxation should be examined as method of capturing the increased land values to pay for infrastructure and amenities. The studies below are in chronological order in each category.

A4.1. How Proximity to Public Amenities Raises Land Values

Adkins (1959). Compares the percentage change in land value near expressways between study and control areas. Changes in land values ranged from 130 to 400 percent increase.

Pendleton (1963). Evaluates effects of highway accessibility on house prices: 100 points of job accessibility is valued at \$2.33; 1 minute of drive-time savings is valued at \$63.68; the log of 1 unit of distance is valued at \$3,552.

Burton and Knapp (1965). Compares before and after values in three bands: 1-mile centered and 0.5 to 1.5 miles each side of beltway. Values inside beltway increased 104 percent, values along beltway increased 39 percent, values outside beltway increased 30 percent.

Gamble, Sauerlender, and Langley (1974). There is a \$2,950 value increase associated with accessibility.

McLeod (1984). In Perth, Australia, price declines \$478 per block away from infrastructure, up to 5.7 blocks.

Bajic (1983). Residential values were \$2,237 higher near rail-lines than elsewhere.

Joint Center for Urban Mobility Research (1987). The Lindenwold line, which runs 14.5 miles from Philadelphia to the New Jersey suburbs, increased nearby housing values by 7 percent, or \$4,500, on average.

Nelson (1990). Although both positive and negative influences may have been present when transit rail is built, this study revealed "the price gradient was positive in the study area."

Voith (1991). Accessibility to train service resulted in a \$5.714 average premium throughout the city of Philadelphia.

Nelson (1992). In Atlanta, Georgia, elevated transit stations (for a heavy-rail system) have positive price effects on homes in lower income neighborhoods and negative price effects on homes in higher income neighborhoods.

Voith, (1993). Accessibility to the Philadelphia CBD is capitalized into suburban house values. A one-minute savings is worth \$1,760 at mean commute time.

Benjamin and Sirmans (1996). Finds that each additional one-tenth mile from a metro station results in a decrease in rent per apartment unit of about 2.5 percent.

Nelson (1999). Commercial property values are influenced positively by both access to rail stations and policies that encourage more intensive development around those stations.

Ryan (1999). No commentary.

Baum-Snow and Kahn (2000). Finds a small capitalization of transit infrastructure into housing prices and rent. "A decrease in transit distance from 3 to 1 km away would increase rents by \$19 per month and housing values by \$4972."

Riley (2001). Land values around the stations of the Jubilee Line extension in South London have increased by £13 billion, when the cost of the extension itself was only £3.5 billion.

Batt (2001). In New York state, comparing land value increase near thruway with value changes farther away, land value created by the thruway amounted to more than 11 times the construction cost.

Siethoff and Kockelman (2002). From 1982–1999 in Austin, Texas, commercial parcels 0.5 miles away from improvements were worth \$50,000 less per acre than parcels with frontage.

Cervero and Duncan (2002). In San Jose, California area, served by both regional commuter and city-wide light rail, downtown properties within ¼ mile of a station in the commuter rail system command a \$25 per square foot premium, while downtown properties within a ¼ mile of a station for the light-rail system show only a \$4 per square

foot advantage. Thus, price premiums for commercial property vary with the degree of regional access provided by different transit technologies.

Gibbons (2003). Homeowners in England and Wales are prepared to pay a substantial premium to avoid educationally poor neighborhoods. An increase of 1 percent in the proportion of higher-educated residents in a community, relative to the regional mean, increases prices by 0.24 percent.

Colwell and Munneke (2003). No commentary.

Cervero (2004). Synthesizes studies completed since 1993, showing price premiums for housing located within a $\frac{1}{4}$ to $\frac{1}{2}$ mile radius of rail transit stations of between 6.4 percent and 45 percent, compared to equivalent housing outside of the station areas. The same review shows premiums for commercial property values ranging from 8 percent along 16th Street Mall, Denver to 40 percent for the area surrounding Dallas' Mockingbird light-rail station.

Mikelbank (2004). Road improvements raise house prices up to 6.7 miles; continued investment increases prices.

Gibbons and Machin (2005). Household value increases due to rail access more than to other local amenities. "The idea of using land values to value 'place' has a very long history, and it is quite easy to grasp the intuition that the value of a piece of land reveals something about the demand for the location of that land."

Kawamura and Mahajan (2005). Total traffic in Chicago has negative effect on land values, but truck traffic was insignificant.

Gibbons (2006). School quality is capitalized in house prices, if access to schools is rationed by residential location. The most popular, over-capacity schools attract the highest premium for improvements in academic standards. Willingness to pay for school quality decreases quite rapidly with home-school distance.

Debrezion, Pels, and Rietveld (2007). A meta-analysis, using data drawn from 57 other studies, finds that residential property values increase 2.4 percent for every 250 meters closer to a transit station and commercial properties increase 0.1 percent for every 250 meters. The effects are greater for stations served by commuter rail than for those served by heavy rail. In the case of bus rapid transit stations, the data show a price discount for nearby properties.

Hess and Almeida (2007). In Buffalo, New York, every foot closer to a light-rail station increases average property values of houses by \$2.31, using geographical straight-line distance, and \$0.99, using network distance. Consequently, a home located within one-quarter of a mile radius of a light-rail station can earn a premium of \$1,300–3,000, or 2–5 percent of the city's median home value. The price advantages of transit-served properties appear to withstand adverse market conditions.

Du and Mulley (2007). The value of properties in the catchment of the London Victoria Line increased between 1 percent and 5 percent as compared to properties outside the catchment area.

Gibbons and Machin (2008). Literature review shows better school quality, improved transport, and lower crime are significantly capitalized into higher local housing values.

Duncan (2008). The San Diego light rail system shows that the "rail proximity premium" for multifamily housing is three times higher (16.6 percent) than that for single-family housing (5.7 percent), supporting the notion that buyers in the condominium market have a stronger demand for transit access than buyers of single-family homes.

Senior (2009). In the United Kingdom, prices of houses located 0.5–1 kilometers from Manchester's light-rail Metrolink stations in 2004/5 were £19,058 higher than more distant houses. (This is a note by Senior, summarizing Nick Ovenell, *A Second Hedonic Longitudinal Study on the Effect on House Prices of Proximity to the Metrolink Light Rail System in Greater Manchester*, an unpublished MSc Transport Engineering and Planning Dissertation, University of Salford.)

Redfearn (2009). No commentary.

Grimes and Liang (2010). In New Zealand, land values rose near new motorway bridge exits. The benefit of the extensions from Tristram Avenue to Orewa was at least \$2.3 billion. Discounted costs were \$366 million. All values in 2004 New Zealand dollars.

Muñoz-Raskin (2010). In Bogotá, Colombia, the housing market places value premiums on properties in the immediate walking proximity of bus rapid transit feeder lines. Middle-income properties were valued more if they fell closer to the system. The opposite was true for low-income housing.

Atkinson-Palombo (2010). The effects of transit-oriented development (TOD) zoning can be distinguished from the accessibility effects of the light-rail transit system. In Phoenix, Arizona, the adoption of TOD zoning had a negative effect on real estate prices in single-family house neighborhoods, but the same zoning in mixed-use areas added a 37 percent premium to condominiums.

Bartholomew and Ewing (2011). Pedestrian/transit-design developments are capitalized into higher real estate prices.

Pagliara and Papa (2011). Values are higher in station catchment areas than in control areas, depending on several factors, such as location, local property market trends, and connectivity given by the new metro line to the city center.

Duncan (2011). In San Diego, California, the estimated station area premium for a good pedestrian neighborhood approaches \$20,000 and can exceed 15 percent. Conversely, for a neighborhood with poor pedestrian quality, the station area discount can approach \$15,000 and exceed 11 percent. Furthermore, station proximity has a significantly stronger impact when coupled with a pedestrian-oriented environment. Conversely, station area condominiums in more auto-oriented environments may sell at a discount.

A4.2. How Public Disamenities and Crime Lowers Land Values

Landis, Guhathakurta, and Zhang (1994). Residential properties outside of downtown San Jose and within 300 feet of the commuter rail line are discounted by as much as \$51,011.

Smersh and Smith (2000). After a bridge opened in Jacksonville, Florida, prices on the far side increased 8.7 percent more than average; prices on near side increased 5 percent less than average.

Bowes and Ihlanfeldt (2001). Most evidence shows new transit service leading to enhanced land values, as the theory predicts. However, with heavy-rail systems there can be a "disamenity zone" close to the station where noise and potential crime effects offset the transit accessibility benefits. Properties within the first ¼ mile of a MARTA station in Atlanta are discounted by 19 percent compared to properties more than 3 miles away. By contrast, properties outside the disamenity zone and within 13 miles of the station command a significant price premium.

Debrezion, Pels, and Rietveld (2006, 2011). In the Netherlands, there is a negative price effect on houses very close to railways, “probably due to noise effects.” Dwellings very close to a station are on average about 25 percent more expensive than dwellings at a distance of 15 kilometers, which shows a trade-off between distance and the noise disamenity. Doubling the frequency of train service leads to an increase of house values of 3.5 percent for houses close to the station and 1.3 percent for houses far away.

Goetz, Ko, and Hagar (2010). In Minneapolis, proximity to light-rail tracks has a disamenity effect on house prices, but a much smaller effect than proximity to heavy rail. However, the disamenity effect—starting at \$16 for every meter closer to the tracks—is, in most cases, outweighed by positive accessibility benefits—which start at \$30 for every meter closer to a light-rail station. There are also substantial differences in residential prices between properties on the west side of the rail line, which have direct access to station platforms, and those on the east side, which are separated from the stations by an arterial street and industrial buildings. In the west side station areas, condos and single-family houses receive price premiums of \$350 and \$45 per meter of proximity to station platforms, respectively. On the east side, however, the disamenity effects of the arterial and industrial uses overwhelm the transit accessibility benefits.

Lynch and Rasmussen (2011). Home prices are highly discounted in high crime areas.

A4.3. How Anticipation of a Public Project Changes Land Values

The housing market factors possible amenities into the prevailing market price well in advance of the time when new projects come into existence because housing prices in their present value already incorporate the future rise in rent.

McDonald and Osuji (1995). The new elevated transit line that runs 11 miles from downtown Chicago to Midway Airport opened on October 31, 1993. “The land market had begun to adjust well before the transit facilities were available.” As of 1990, an increase of 17 percent in residential land values within one-half mile of the station sites can be

attributed to improved access provided by the transit line. The increase was 1.9 percent (or \$126.75 per lot) for each mile of distance to downtown Chicago for those sites within one-half mile of the stations.

Knapp, Ding, and Hopkins (2001). In Washington County, Oregon, plans for light-rail investments had positive anticipatory effects on land values in proposed station areas.

Bae, Jun, and Park (2003). The distance from Seoul, Korea's Line 5 subway station had a statistically significant effect on residential prices prior to the line's opening.

McMillen and McDonald (2004). Long before it was actually built, the new rapid transit line from downtown Chicago to Midway Airport began affecting single-family house prices near stations by the late 1980s and early 1990s, as soon as plans for the line were well known publicly. The aggregated increase in the value of homes within the sample area as compared with properties farther away from stations was approximately \$216 million between 1986 and 1999.

Mikelbank (2005). From the time of its announcement, the price impact of an infrastructure project is initially positive, then negative, then positive again. Even small projects have some impact.

Thus, it is unsurprising to find most scholars raise, and in some cases support, land value taxation as a means of funding public infrastructure projects.

A4.4. Using Land Value Taxation to Pay for Public Projects

The following are studies that have advocated the use of "value capture" to pay for public infrastructure. That means, the government would pay for the project from revenues collected from the increase in land values generated by the project.

Smith and Gihring (2006).

Iacono, Levinson, Facer, and El-Geneidy (2008).

Chapman, Cornia, and Walters (2009).

Zhao, Das, and Larson (2010).

Yusuf (2011).

Zhao (2012).

Junge and Levinson (2012).

Brown-Luthango (2011).

Notes

1. See also Marshall ([1890] 1961: 462).
2. Collier (1975, 163) cites C. E. Ferguson on these different approaches to population and land taken by classical versus neoclassical economics.
3. Shove (1928) is the source for Robinson.
4. See also Fetter (1904: 176–198). Böhm-Bawerk ([1889] 1959: 408, n.85) refused to be persuaded that land is capital.
5. The sentence reminds one of the Ash Wednesday admonition “Remember Man that thou art dust, and unto dust thou shalt return.”
6. In this connection, it should be noted that Henry George did not wish to abolish rent, as did Buchanan. George (1889: 6) clearly understood the necessity of charging rent to ensure efficient use of scarce natural resources; in fact he once said “rent is a natural and just thing.” George wanted the equal sharing of rent among the people of a country (via his single tax). While artificial monopoly rent would be abolished (as by abolishing product, patent, or transport monopolies), the natural monopoly rents of land (including natural resources generally) should be collected for public revenue and the people in general.
7. Compare Ricardo (Ch. 2, ¶15, Ch. 13, ¶7).
8. Modern classical liberals or libertarians, such as Hayek ([1948] 1972: 110–113), have still to reconcile their beliefs in free markets and private property with the ethical and efficiency problems posed by absolute individual land ownership. If one believes in free competition and no conferring of private privilege, what does one consider a land title enforced by the state?
9. Adam Smith’s price-cutting fertile coal mine (noted above) has modern equivalent examples. For reasons why resource-based monopolies may be weakened by rent taxation, see Gaffney (1967: 367, 406).
10. Editor’s note: The author refers to aggregate land values (and later to aggregate rent) as the “welfare criterion” for Adam Smith and the Physiocrats. For those not familiar with this specialized use of the word “welfare,” it simply means well-being. (It has nothing to do with the “welfare state” that redistributes income in the form of social security or income supports.) The question addressed by “welfare economics” is the fundamental question of utilitarian philosophy: how to define and measure the well-being of society as a whole. Jeremy Bentham, the founder of utilitarian thought, stated the problem as how to achieve “the greatest good for the greatest number.” Since World War II, most economists have judged national well-being as the total output of an economy (gross domestic product or GDP). Few are satisfied with that measure, since it adds costs and benefits together in ways that only crudely approximate well-being, but it remains the measure that most economists believe comes closest to satisfying the welfare criterion. Dwyer in a very understated way, is suggesting an alternative to GDP that has deep historical roots: the “net product” of society, as measured by aggregate rent or

land values. In a 50-year-old debate over measurement of national welfare, this is a fresh new idea that deserves attention. The fact that it gained its start with the Physiocrats and Adam Smith should give it credibility.

11. For a modern land-taxer's eulogy of the feudal system, see Adam (1907: 12–25).

12. Editor's note: "Squatters," who were making trivial payments on leases of tens or hundreds of thousands of acres of land, attacked the efforts by Governor Gipps to collect a more appropriate sum for their huge estates. They accused Gipps of employing "summary powers" that did not rightfully belong to the Crown. The ultimate question was whether the lands were held in trust for the entire population or belonged to those who had seized them a generation earlier. The full statement by Governor Gipps is as follows: "No constitutional lawyer whose opinion is entitled to any respect, has, I believe, ever asserted, that to take a payment for the use of Crown land, is to impose a tax. The contrary has been maintained down to the most recent times, by lawyers of the highest eminence in England, by the British Government, and by the British Parliament" (Rusden 1883: 377)

13. A fiduciary asset is an asset the value of which rests on the assumption that the state will honor its obligation to pay. As holders of Confederate or Imperial Russian bonds found, such forms of "capital" (described by Henry George as values from obligation) may prove evanescent.

14. Editor's note: Excess burden refers to the lost output that occurs when a tax reduces economic activity. For example, the direct burden of a tax on wages is a reduction in the income of wage-earners. The additional or excess burden is the lost economic output from everyone who works fewer hours per year as a result of the tax.

15. Editor's note: Pareto-optimality refers to a condition where it is impossible to make one person better off without making someone else worse off. In practice, it is a conservative criterion of social value that recognizes the value of private exchange but denies the value of any public investment that might benefit the majority of people if it makes even one person worse off. It is approximately equivalent to a unanimous voting rule to protect a small minority from a majority. In the present instance, the author is using the term merely to refer to the loss of economic efficiency. Taxes on productive activity that raise price above cost create conditions that are less efficient in a technical, economic sense than the results would be of unrestricted transactions. An "efficient" or "Pareto-optimal" condition is an outcome in which the lowest-cost factors of production are used first, and products are allocated to the consumers most willing to pay for them. In many cases throughout the text, the author uses the term to refer to the allocation of land to its highest and best use. The failure to do so leaves superior sites underdeveloped, which leads to the overuse of marginal lands, a phenomenon sometimes referred to as "sprawl."

16. Harberger (1974: 127–128) criticizes the idea that taxes can fall on consumers.

17. See also Seligman (1927: BK II, Ch. 5, 184–185).

18. Editor's note: Entails and restrictive covenants are provisions on the use of land imposed by members of one generation on future generations. In the television series "Downton Abbey," the estate is entailed, which means the Earl of Grantham is not allowed to pass the estate on to his daughters upon his death, a restriction imposed centuries earlier.

19. Smith's emphasis on equal rights reflects his underlying acceptance of natural law. Indeed, as Brendan Long (2006) has argued, Smith's invisible hand is the unseen hand of the Deity as supreme lawmaker.

20. For historical support or Smith's hostility to land engrossment, see Sakolski (1957: 26, 60–63). Reeves (1902: Ch. VI) covers the 19th-century history of Australian efforts to break up large estates for closer settlement. Editor's note: Smith's optimistic view of British colonies should have been limited to the northern colonies, particularly Massachusetts. In Maryland and Virginia, large tracts of the best land were engrossed in giant plantations by 1700, and the result was the development of a slave-based economy. The methods of colonization in the 17th century still have a tremendous impact on regional political differences in the 21st century.

21. There are parallels in patent law, as patent "squatters" who do not use or license their patents seek to extract payments through litigation against alleged infringers. In other words, they make money solely by hoarding an invention and blocking potential users of a technology, not from using it themselves. To confuse discovery with creation as the basis of property rights seems a recurring historical error.

22. See also Seligman (1927: 127, 136).

23. The robust neutrality of a nonuniform tax on land rents contrasts strongly with the excise effects of nonuniform tax rates on capital and labor in different industries or in different jurisdictions. This is another reason why a land value tax would be superior to an income tax in periods of inflation. See Appendix 4.

24. This is the answer to McCulloch's (1863: BK I, Ch. 1, 56–60) apparent insistence that, to be neutral, a tax on rent should be a fixed charge in perpetuity.

25. Walras held analogous views (Jaffe 1975: 811). Land-taxers such as Fillebrown (1917: 138–149) used the same facts to argue differently. Since future purchasers bought free of the tax, there was no objection to increasing a land value tax over time, so that future buyers were not tax-exempt vis à vis previous landholders.

26. Mill's point in thinking of land being used for urban building versus farming is not academic. Apparently, in Tokyo, market gardens persisted in the city because agricultural land use was not taxed like urban land uses.

27. This mistake was made by Peter Mieszkowski (1970: 14) and Henry Aaron (1974: 216 n.7). Mieszkowski thought a restriction of land value taxation “to urban *areas*” has the same non-neutral effects as a restriction “to urban *uses*.” This is not so, as we have explained. Aaron made the same mistake. The mistake is not corrected in Mieszkowski and Zodrow (1989), a paper that deals extensively with the optimality of the Henry George Theorem. The neutrality of even a geographically or jurisdictionally limited land value tax (on all land uses in that limited area) contrasts favorably with an income tax subject to international tax competition: all international tax planning rests on the mobility or mutability of capital and even labor incomes, whether in terms of legal form or legal owner or place of activity. It is therefore strange that treasuries concerned about tax losses due to mobile tax bases seem so ignorant of the point discussed here. Of course, in a trivial sense, no local land value tax can ever solve the whole world’s problems. If one country or region adopts a land value tax, that tax is neutral with respect to all uses of all land in that territory: it is not neutral with respect to the rest of the world, as that territory draws capital and labor away, just as the tax-free Gulf States draw in expatriate labor, or just as high capital-taxing jurisdictions (via the property tax) in the United States drive business elsewhere.

28. Andelson (2000) refutes Hayek’s argument that land values may be due to actions of the individual owner rather than communal effort. Editor’s note: A more recent example of this phenomenon is Disney World, where some would argue that Disney created land values in a vacuum, entirely with private investments. This ignores the Florida climate, which draws visitors in the winter, and the national public investments in highways, including the interstate system, that permitted customers to drive easily to the Orlando, Florida area.

29. A social objection to such ventures as Pullman City is the absolute power the landlord could exert over the lives and even the religion of employees. For this reason, in 1899 the courts ordered the Pullman Car Company to dispose of land not used in its works (Scheffel 1916: 386 n. 2). See also George (1879: BK VII, Ch. 2, ¶XX, 351–352).

30. It is also the answer implicitly given by Ramsey (1927). As Gaffney (2011: 2) observes:

The Ramsey Rule, say[s] that sales tax rates, to be allocationally neutral, should not be uniform at all, but inversely proportional to elasticities of supply and demand. The writer has addressed this issue elsewhere, quoting A.C. Pigou (1947: 105): “*If there is any commodity for which either the demand or the supply is absolutely inelastic, the formula implies that the rate of tax imposed on every other commodity must be nil, i.e. that the whole of the revenue wanted must be raised on that commodity.*” That reasoning leads straight as a guided missile to levying taxes *exclusively* on the value of land,

because its supply is absolutely inelastic. Whether Pigou knew what he was saying we may never know, for he was guarded and cautious and indirect and often obscure and coded, like so many academics fearful of witch-hunters.

Gaffney (2009b: 375–376) notes that Joseph Stiglitz is one of the few economists to see this point clearly. Whereas most economists apply the Ramsey Rule only to demand elasticity (and thus ignore land), Stiglitz (1986: 403–404) recognized that the optimal tax rate takes both demand *and supply* elasticities into account. Stiglitz (1986: 567–568) concludes that “while a direct tax on land is nondistortionary, all the other ways of raising revenue induce distortions.” For that reason, Stiglitz (2010: 5) favors the taxation of land as a policy prescription: “One of the general principles of taxation is that one should tax factors that are inelastic in supply, since there are no adverse supply side effects. Land does not disappear when it is taxed. Henry George, a great progressive of the late nineteenth century, argued, partly on this basis, for a land tax. It is ironic that rather than following this dictum, the United States has been doing just the opposite through its preferential treatment of capital gains.”

31. The dynamic effects of a tax on land value can be understood from the following formula, for which I am indebted to Michael Trigg.

- Let V'_n = market value at beginning of year n
- V'_{n+1} = market value at end of year n
- R_n = rent received in year n
- t = the ad valorem tax rate (assumed constant)

In equilibrium, land values must be such that the net return obtained from holding land must equal the rate of interest applied to its saleable value:

$$\begin{aligned} \text{Returns} &= \text{cash receipts} + \text{capital gains} \\ &= R_n + (V'_{n+1} - V'_n) \end{aligned}$$

$$\begin{aligned} \text{Net Returns} &= \text{returns} - \text{taxes} \\ &= R_n + (V'_{n+1} - V'_n) - tV'_n \\ &= iV'_n \end{aligned}$$

Hence

$$\begin{aligned} &= \text{return on any investment} \\ (1 + i + t)V'_n &= R_n + V'_{n+1} \\ V'_n &= \frac{R_n + V'_{n+1}}{(1 + i + t)} \\ &= K(R_n + V'_{n+1}) \end{aligned}$$

where we let $K = 1/(1 + i + t) < 1$

Likewise, we obtain $V'_{n+1} = K(R_{n+1} + V'_{n+2})$

The formula is recursive and substitution gives the result:

$$V'_1 = KR_1 + K^2R_2 + K^3R_3 + \dots + K^nR_n + K^nV'_n$$

This formula includes the pre-tax case when $t = 0$, which may be written

$$V_1 = kR_1 + k^2R_2 + k^3R_3 + \dots + k^nR_n + k^nV_n$$

where $k = 1/(1 + t)$

32. Brown's argument is reflected in Friedlaender (1974: 232 ff.) and in Polinsky and Rubinfeld (1974: 5), where it is accepted that, in an open economy, taxes on capital will fall on land.

33. A critical view of efforts to generalize the rent concept is Ellickson (1966: 191–199).

34. Adam Smith's views on entails and rent taxation did not, however, seem to appeal to a successor of his one-time pupil: "The Late Duke of Buccleuch died with a hearty contempt for Mr. Henry George's wild schemes of disorder and confiscation and in his will arranged the management of his estates for 1300 years to come." *New York Tribune* (1884), quoted in Lawrence (1957: 35–36).

35. George's thesis about land speculation as a precipitating cause of industrial depression is not considered here. It can be found in George (1879: BK V, Ch. 1) and is more fully developed in Gaffney (2009). Some discussion of it may also be found in Ellickson (1966), Collier (1975), and Andelson ([1979a] 2003).

36. The practical problems of taxing the value of leaseholds arose in Great Britain in the late 19th century. Given the land tenure system as it stood then, with feu duties, ground rents, first and second lessees, and reversionary interests in land, how would a tax on site value actually work? Should such a tax be levied on the occupier as with the existing rates (property taxes), on the lessee, on the landowner, or on some combination of these (Edgeworth 1900: Pt. 3, 490–495; Moulton 1889: 11–12; Fox 1908: 26–43)? The solution to this problem would appear to be: (a) establish the site value and the tax thereon in the normal manner; (b) distribute the tax in proportion to the present values of the various interests in the site. The present values of the various interests in the site could be got by either self-assessment or assessment by the authorities and would correspond to the value one would obtain for an assignment of a lease-hold contract. It may be that the sum of the values of the various interests could fall short of an assessed site value; this would be an indication that the leasehold interests were operationally superfluous (Turvey 1957: 78, n.1). In that case, the tax would encourage consolidation of interests and simplification of tenure, just as it would also tend to force the elimination of excessively restrictive covenants.

This system would differentiate between a tenant on a freely adjustable rent (who has no effective interest in the site) and a tenant on a fixed 99-year lease (who effectively would have early on almost as much interest in the site as a freeholder); it also distinguishes between a landowner near the beginning of a 99-year lease, who may effectively have lost all prospects of capital gains

from the site value, and one about to receive the reversion, who stands almost in the same position as an unencumbered freeholder. Although changes in the British land tenure system have reduced the practical importance of the problem, the practicability of a solution on the above lines is supported by the reasonably successful valuation of leaseholds under the Australian Federal Land Tax (Bird 1960: 389–390).

37. Since rents not received are not subject to income tax, this method of establishing market power (which will be capitalized as “goodwill”) is effectively tax deductible. Brown ([1924c] 1979: 208) makes an analogous remark about evading excess profits taxes by deductible spending on advertising, which will likewise be capitalized into goodwill.

38. For various expressions of these views, see Smart (1900: 68, 94); Darwin (1907: 330–344); E. R. A. Seligman ([1914] 1917: 697–702); Hoxie (1915: 166–176); and Rybeck (1970: 15).

39. See also Cannan (1907: 39–43); Edgeworth (1900: Pt. 3: 498); and Carver (1915: 293–294).

40. When George uses the term “monopoly” in this passage, he does not use it in the technical economists’ sense: what he means is unequal access to the use of land, ultimately due to the fact that future generations cannot buy land now. See also George (1883: Ch. 21; 1890b: 84).

41. Of course, the validity and utility of the theory depends on the assumptions one makes (Kunce 2000; Behrens and Murata 2009). Arnott (2004) sees the HGT as “sufficiently promising to merit further exploration.” Kuroda (1994) argues that some confiscation is necessary not only to prevent unexpected income redistribution but also to attain the optimal population distribution through fiscal transfers. Kunce and Shogren (2008) argue that even in the presence of uncertainty, the size of population serves as insurance, thus making it efficient to increase the size of population beyond the optimal level, since land rents will exceed public good costs.

42. Various models have established that if the land rent is sufficiently high, the social optimum can be implemented by using the tax revenue for investment in productive public capital (Mattauch et al. 2013). Mieszkowski and Zodrow (1989) present a general survey of the Henry George Theorem.

43. Editor’s note: A bonus is an up-front payment made for the right to explore for and extract a mineral. It is based on the *expected* value of a mineral deposit. A royalty is a per unit payment made for extraction of a mineral.

44. Calvo and Rodriguez (1979: 869–874) have suggested that, if a bequest motive is operative, Feldstein’s result does not hold. Conversely, the result holds if there is no such motive, which does seem a more realistic hypothesis for reasons given in the text.

45. A little noticed advantage enjoyed by land value taxation over income taxation is its continued neutrality under inflationary conditions. Since rent is not a real cost of production and a land value tax cannot be shifted, such a

tax can have no cost-push inflationary effects. Smith (BK V, Ch. 2, ¶49) saw this advantage: "In all the variations in the value of silver, and in all those in the standard of the coin, a tax of this kind would, of its own accord and without any attention of government, readily suit itself to the actual situation of things; and would be equally just and equitable in all those different changes."

A land value tax is immune to the distortions and problems with which inflation saddles income taxes: (a) mistaken figures for capital gains, with the consequent penalization of the optimal allocation of resources, (b) the upward drift towards higher tax brackets in the progressive scale, and (c) the mismeasurement of operating business income due to erroneous charges for depreciation and cost of goods sold. This represents a deterrent to capital formation and a bias towards labor-intensive, as opposed to capital-intensive, industries. It is true that if land values are not reassessed simultaneously, the effective rate on different landowners will not be the same, but this equity problem in no way affects the economic neutrality of the tax. Moreover, with annual assessment, even this equity problem disappears.

46. Editor's note: The author here and in following passages refers to the proponents of land value taxation as "single-taxers." That terminology began in France with the Physiocrats, who spoke of the *impôt unique*, as they proposed to tax only the rent of land. In English-speaking countries, in the period from around 1880 to 1940, the term was often used to refer to the followers of Henry George, who proposed to eliminate other taxes (mostly excises and tariffs) and rely exclusively on levies upon land values, mostly in cities and suburbs. With the growth of the size of government, particularly after World War II, the term fell out of use, as it became more difficult to defend claims that revenue from land value taxes alone could sustain large government budgets.

47. See also George (1879: BK VII, Ch. 4, ¶21–24; 1892: 178–179). The legal history of English land tenure is surveyed in Thackeray (1889), a book originally written as a thesis for the degree of Doctor of Laws from the University of Cambridge, and that carries a preface by Henry George.

48. On this objection, see Andelson ([1979d] 2003: 482). Also see Harriss (1979: 366) on Rothbard's version of this objection. For Hume's formulation of this objection, see Richard Schlatter. ([1951] 1973: 240).

49. See also George (1892: 232; 1890b: 78).

50. See also Spencer (1851: Ch. 9, §3); Douglas ([1979] 2003:193); Wedgwood (1912: 391–392).

51. See also George (1891: 25–26). Compare Nozick (1974: 179).

52. For the perceptions of various writers as to the conflicts between private property and taxation, see Schlatter ([1951] 1973: 98, 102, 118–119, 221).

53. See also George (1891: 8, 19, 47, 51, 55, 81; 1892: 204–205, 210–212, 215, 241).

54. In the past, land and site values have reflected the benefit of water rights or reticulation services for gas, electricity, and other site-based services. If these rights are stripped from land, or if utility services are charged on a monopoly basis rather than marginal cost, land and resource rents can be adversely affected. Monopoly rents enjoyed by utilities can grow at the expense of the lands they were created to serve.

55. Australian Bureau of Statistics (2001) puts a value of \$2.7 billion on the spectrum as of June 2001. This figure is based only on the third-generation spectrum (3G) licenses and does not include existing radio and TV license rights. The Productivity Commission (2000: 186–187) estimated in its broadcasting report that \$211.1 million was paid as annual radio and television license fees in 1997–1998 and the growth had been 8.6 percent compounded in real terms over the 20 years from 1978–1979. The license fees are based on a percentage (between 0.25 percent and 9 percent) of advertising revenue. ABS Catalogue No. 8680.0 gives total income for radio and television spectrum license holders at approximately \$4.5 billion in 1996–1997. ABS Catalogue No. 8145.0 gives 1996–1997 revenue for telecommunications carriers at \$20 billion. If one-third of these amounts represents resource rent, then the value of the spectrum could be as high as \$8 billion annually or \$58 billion, capitalized at a 14 percent earning factor.

56. Australian Bureau of Statistics (1999: 21).

57. Figures were kindly supplied by Debbie Brown of the Australian Bureau of Agricultural and Resource Economics and Sciences for value of boats with and without quota licenses. These were aggregated to give a value of \$834.6 million for the total Australian fishery.

58. In some cases, the imposition of higher annual land holding charges would squeeze speculative water out of market values for land, but this effect would tend to be concentrated on land held semi-idle by speculators on urban perimeters, for example, rather than land held by serious users. The market value of the bulk of land being used productively could be expected to increase with increased competition for land, when net, after-tax returns to labor and capital rose. It should also be noted that there is no way to avoid a land value tax by re-categorizing land income as labor or capital income. The market value of land is fixed by demand external to the owner and hence his tax burden is an unavoidable “lump-sum” tax. Further, if the owner sells to try to avoid the tax, the buyer discounts the tax in the purchase price.

59. The Commonwealth Federal Treasury has been severely criticized by many commentators for getting its income tax and GST revenue predictions (i.e., its forward estimates) wildly incorrect in recent years.

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