

CHAPTER 1

Motivation*

1.1 Introduction

This dissertation is concerned primarily with the economic consequences of shifting some of the property tax from structures to land. Methodologically, it offers the somewhat unusual feature of an explicit discussion of the ethical foundations of the policy that it analyzes. This approach was inspired by the observation that positive neoclassical economic theory, although doubtlessly useful and applicable to the real life, nevertheless leaves two important questions unanswered: why should we follow its suggestions, and why are the neoclassical suggestions better than the suggestions made by other theories?

There always exists the possibility, and very often the hope, that the results of economic analysis can and will be used to justify economic policy. But some economic policies have socially unacceptable consequences, because economic theory very often suggests outcomes as efficient (and therefore potentially desirable) that moral intuition would clearly condemn.

Some economists answer these questions by describing economic theory as a set of tools which can simply be applied to different situations. They assert that, like the engineer, who designs a device to hammer nails into a wall without asking if his tool can also be used to hammer on people's heads, the economist merely develops an instrument, and it is the task of the policy maker to decide if the outcome is acceptable or not. Economics is regarded as a positive science, and does not need to have any normative implications.

This interpretation of economic theory has two difficulties. First, it may be questioned whether the development of tools is really a task that can be performed in an ethical vacuum. As economic policy can have strong influences on social structures, it is not clear that the designer of the policy can escape blame or praise any more than the person who implements it. Clearly this is a general caveat to every science, and it has motivated discussions about the ethics of the development of nuclear weapons as well as applications of medical techniques and gene technology.

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It may also be asked if neoclassical economics actually describes a value-free set of tools, or if its underlying assumptions, its ‘first principles’, are already influenced by ethical appraisals. If this is the case, then it will be impossible to develop economic theories without implicitly making a judgment about their outcomes at the same time. An economist who uses neoclassical theory without being aware of these implicit moral foundations faces the danger of creating a tool that does not meet his own moral standards, and that he would not sanction if he could clearly see its social implications. Neoclassical economics has deep roots in liberal political philosophy, and a thorough understanding of the implications of liberal theory is necessary for an evaluation of economic theory.

If neoclassical economic theory has normative foundations, one might wonder whether it is more important to focus on the development of ethical theories than to develop economic techniques. The search for the best moral theory (if it exists) could provide deeper insights into social relationships than economic theory offers. Yet an ethical theory without technical support leaves equally many questions open. Moral philosophers have frequently developed theories without reference to or understanding of economic relationships, which makes their work difficult to understand as well as virtually impossible to apply in the light of neoclassical economic assumptions. Just as economists should be aware of moral theories when they apply their principles, so should philosophers be aware of economic principles when they appraise moral theories, or, as Onora O’Neill puts it: “Principles without appraisals are empty, appraisals without principles are impotent.”¹

The quest becomes one of finding a suitable combination of the technical principles of economics with the appraisals of ethical theories. Very often, however, it is still argued that neoclassical economics is essentially a value-free science; it is therefore informative to review the arguments that emphasize the normative influences to neoclassical economics. Section 1.2 shows that these influences come mainly from liberal theories, although there exist also some utilitarian and conservative traces. Its conservative treatment of property right and distributional justice is one of the main points of critique of neoclassical economics, and Section 1.3 summarizes various liberal approaches to distributional justice and property rights that could replace the conservative theory. Yet not all of them are applicable in the neoclassical context; Section 1.4 therefore describes and motivates a liberal theory that is based on the work of John Locke, Henry George, Bruce Ackerman, and Nicolaus Tideman, which provides particular support for many of the neoclassical economic assumptions. It asserts that all persons have equal claims to the value of natural opportunities, and that public collection of all of the rent of land is required to support these claims; this argument is examined in greater detail in Section 1.5. The following seven chapters examine the economic consequences of collecting this rent; the plan for this analysis is laid out in Section 1.6.

¹ O’Neill (1989), p. 186.

1.2 Normative Economics

Unlike scholars in most other social sciences, economists widely agree on a common approach to their subject. Even though there exist several schools of thought, none of them has posed a serious challenge to the mainstream view as articulated by neoclassical economics. Despite some complaints that this view is too conservative, neoclassical economics dominates the economic profession in the United States. It dominates for several reasons: first, none of the alternative approaches provides more convincing explanations of economic phenomena than the neoclassical approach. This does not automatically imply that the alternatives are worse. Many of them ask different questions than the mainstream approach does; for example, they analyze the impact of power structures on economic relations, or focus on the relevance of institutions. This makes it hard to say if they explain the economic realm better than neoclassical theory does.² Second, although empirical tests of the predictions of neoclassical theory frequently fail, neoclassical economics is nevertheless open and committed to empirical investigation, and many of its predictions are stated in ways that make empirical work possible.³ Other approaches to economics are frequently not so devoted to empirical investigation, and some of them, like Marxism or several institutional approaches, do not even consider empirical tests and predictions as part of their task.⁴ In his essay *The Methodology of Positive Economics*, which is one of the most influential works on economic methodology in this century, Milton Friedman remarks that

criticism [that orthodox economic theory is unrealistic] is largely beside the point unless supplemented by evidence that a hypothesis differing in one or another of these respects from the theory being criticized yields better predictions for as wide a range of phenomena. Yet most such criticism is not so supplemented; it is based almost entirely on supposedly directly perceived discrepancies between the 'assumptions' and the 'real world'.⁵

It therefore becomes very difficult to compare such work with neoclassical predictions, and to decide which theory comes closer to describing the 'real world'.

The third, and probably most important reason for the dominance of neoclassical economics is that its strongest underlying paradigm fits the ideals of western, or as one should rather say, American society better than those of its challengers. The basic principles of neoclassical economics are related to the individual, rather than to the society at large, and to the

² Blaug (1980), p. 264.

³ This view is deeply rooted in neoclassical economics since the shift of the scientific paradigm from verificationism to falsificationism. See Hutchison (1938).

⁴ Blaug (1980), pp. 258-259.

⁵ Friedman (1953), p. 31.

claim that an individual's wishes are to be taken seriously. Sandel (1996) argues that the political philosophy of American society is moving more and more towards a liberal society, in which the rights and opinions of the individual become more important than the rights and opinions of the group, and away from its republican roots which allow the state to define a society's purpose. This growing support for its principles explains to a large extent the success of neoclassical economics in the United States throughout this century; few economists who reject the notion of the importance of individuals are convinced supporters of the mainstream view.⁶

The political philosophies of many European and Asian countries emphasize rather the interactions between the individual and society, and are concerned with the responsibilities that each has for the other. It is therefore hardly surprising that alternative approaches to economics are frequently employed by people who are more accustomed to and influenced by this way of thinking. This raises some doubt about the claim that orthodox neoclassical economics is a value-free science, because it implies that the crucial place that the individual is given in neoclassical theory, is already an expression of the liberal norms that are predominant in contemporary American society, and very influential in many western societies.

The last twenty years have brought a renewed discussion of implicit values in neoclassical economic theory.⁷ For a long time economists like John Neville Keynes, Fritz Machlup, Joseph Schumpeter, Robert Solow and Milton Friedman defended (and still defend) very forcefully the view that it is possible and necessary to separate economics into a positive and a normative realm.⁸ Their position is based on Hume's observation that it is impossible to deduce norms from descriptive statements alone.⁹ Milton Friedman holds the view that "positive economics is, or can be, an 'objective' science, in precisely the same sense as any of the

⁶ In their economic experiments dealing with public goods and the free-rider problem, Marwell and Ames (1981) found that economists are more likely to free-ride than non-economists. This provided the ground for lengthy debates about whether dealing with economic theory would make people selfish, or if selfish people were drawn disproportionately to economics. The above argument supports the second point of view. A possible explanation for selfish behavior, or at least for free-riding, is that people who consider the individual to be more important than the group will be more likely to act according to their own advantage, and less likely to try to increase the benefit for the group. If these people are also more likely to be attracted by a profession that puts a strong emphasis on the individual, then the correlation found in the experiments is not surprising.

⁷ Moral and political philosophy has not been valued very highly among philosophers during most of the 20th century. Moral philosophy was regarded as subjective, and it seemed impossible to say something of universal validity. The publication of John Rawls' book *A Theory of Justice* in 1971, and his claim of having developed a universal theory established new interest in this field, and started a renewed debate about social values.

⁸ Keynes (1917), Friedman (1953), Machlup (1956), Schumpeter (1949), Solow (1971).

⁹ Hume (1961, [1749], Section 4, pp. 25-39).

physical sciences,”¹⁰ and he remarks that

a consensus on ‘correct’ economic policy depends much less on the progress of normative economics proper than on the progress of a positive economics yielding conclusions that are, and deserve to be, widely accepted. It means also that a major reason for distinguishing positive economics sharply from normative economics is precisely the contribution that can thereby be made to agreements about policy.¹¹

According to this view, neoclassical economics can be pursued without making any value judgements, and its results can generally be applied to any society.

This position has been challenged by many economists, among them Gunnar Myrdal and Herbert Simon. Several authors have attempted to show that much of what is labeled ‘positive economics’ is unavoidably mixed with ethical concerns. Most do not deny that some of its technical aspects are virtually value-free, but they do deny that the assumptions about people’s behavior can be made or understood in a value-free vacuum.

The critics of pure positive economics can be broadly divided into three groups. The first group claims that it is impossible in general to pursue value-free science. They point out that to get answers one needs to ask questions, which will be influenced by values, and they stress that the range of answers that scientists are willing to accept as ‘correct’ answers will always be influenced by their value systems.

The second group claims that it is impossible to pursue value-free *social* sciences like economics. This claim is based on the idea that the concepts of social sciences and economics will always have meanings beyond pure theory, as they have emotive connotations and can be employed to persuade or to command.¹² Gunnar Myrdal emphasizes that, from the habit of continuously trying to evaluate economic phenomena from a specific point of view stems

the belief, commonly voiced today, that the fundamental arguments of social philosophy may safely be by-passed, and that the economist may justly proclaim the independence of his science from political premises even when he actually ventures over the border into political speculation. ...[As the] reputation [of economics] was strengthened by continued usage...[,] it has become easier to disregard those speculations, rooted in social philosophy, which historically constituted and logically still constitute the basis of many of its con-

¹⁰ Friedman (1953), p. 4.

¹¹ Friedman (1953), pp. 6-7.

¹² Streeten (1958).

clusions.¹³

According to this view, any science that deals with human behavior needs to make assumptions regarding this behavior, which will necessarily be based on some personal normative ideas of the scientist, about which behavior can, or should, be expected.

The third group of critics maintains that, irrespective of the possibility of dealing with value-free social science, apparently positive predictions of neoclassical economics are still influenced by values. This claim refers to the crucial underlying assumptions of the orthodox theory like rationality, self-interest, preference satisfaction, profit maximization *et cetera*, which are regarded as unrealistic, sexist, conservative and resting on outmoded psychology.

A full discussion of these arguments is beyond the scope of this chapter.¹⁴ One such argument from the third group, however, deserves a closer look, because it is indirectly related to much of the criticism voiced against contemporary neoclassical economics. Very often neoclassical theory is criticized because it puts (too much) emphasis on the importance, independence, freedom, and rationality of individuals and their decisions. The individual is assumed to maximize her *utility*, which she does by evaluating her *preferences*, screening the *opportunities* that are offered to her by *other market participants* while keeping in mind her restricted *endowments* or *resources*, and by making a *rational choice*. This examination of the process of exchange is supposed to be value-free, and culture, rules, taboos, and power relations are regarded only as influences on preferences and opportunities. Neoclassical economists claim that individuals possess the ability to make rational decisions, and that these decisions are to be taken seriously. In addition, preferences of individuals are taken as given, and are not subject to critical appraisal. In other words, the autonomous individual and her preferences are what matter, and the outcome of a decision making process is measured by individual success. The meaningfulness of the concepts of group preferences and group success is denied, at least when the individual groups are heterogeneous. The underlying claim about the importance of the individual, and the claim that the individual acts rationally, seem innocuous, because they are part of the contemporary political approach in many parts of the western world. But as Myrdal has stressed, their repeated application has rooted these claims so deeply into economic reasoning that economists rarely question them in their work. Still, others, who are more concerned with political or philosophical issues, frequently subscribe to different views about what is really important in social matters. Many people regard implicit contracts, as they are formulated in culture and tradition, as more important than explicit contracts, and they are therefore prepared to attack the importance that neoclassical econom-

¹³ Myrdal (1954), p. 22.

¹⁴ Excellent bibliographies are provided by Redman (1989) and Hausman (1994).

ics attaches to individual freedom.¹⁵ The observation that many neoclassical economists do not consider this critique relevant at all, indicates how deeply liberal ideas are woven into neoclassical theory.

In addition to taking an individual's freedom and preferences as given, neoclassical economics does not question individual endowments. Far from being value-free, this is another way for normative ideas to enter the sphere of positive economics. Murray Rothbard has pointed out that

for an economist to say that X and Y should be free to trade Good A for Good B unmolested by third parties, he must also say that X legitimately and properly owns Good A and that Y legitimately owns Good B. But this means that the free-market economist must have some sort of theory of justice in property rights; he can scarcely say that X properly owns Good A without asserting some theory of justice on behalf of such ownership.¹⁶

By refusing to question initial endowments, neoclassical economists implicitly accept a conservative theory of distributional justice. This conservatism is most apparent in the Pareto principle, which states that any change can be called 'improvement' only if it makes some individuals better off without making even one single individual worse off. Although there will exist many Pareto optima, neoclassical theory does not support claims that one optimum is *better* than another. Although it seems to follow liberal ideas, the philosophical roots of the Pareto principle are conservative: changes are evaluated by comparing them to a given state of the world, which is assumed to be an adequate point of comparison. Whether this original state was reached through just or unjust actions does not matter. Liberal theories, on the other hand, regard the way a certain state was attained as important, and if this state was reached through unjust actions, it cannot be used as a just starting point for changes.

Even though the Pareto principle is motivated by conservative ideas, most of neoclassical economics is not. Conservative theories do not focus on individual actions, but rather on tradition, culture and history. It does not matter if a change could make someone better off if this change violated any existing rights; for example, free trade would be rejected by a conservative society, if this society had a tradition of protection from competition, and the removal of the protection would harm certain people. The state or the policy maker in a conservative society is not neutral about what a society's goals should be, as liberal theories postulate, but sees the historically developed structure as best, and tries to preserve society in this form. An economic theory based on a conservative political theory would have to be

¹⁵ Some critics (e.g. Lionel Robbins, Frank Knight, and Austrian economists like von Mises) do not challenge the importance of the individual *per se*, but claim that the assumption that all people are basically rational is too strong.

¹⁶ Rothbard (1974), p. 101.

based on the particular tradition of a certain society, and could not claim the universal validity that neoclassical theory claims.

In addition to its conservative roots, the part of neoclassical economics that uses social welfare functions has utilitarian roots. Utilitarianism claims that the good consists of maximizing the sum of individual satisfactions. Welfare economists, accepting the premise that an objective measurement of individual satisfaction is not possible, change the goal to maximization of some function of individual ordinal utility indicators; the function is prescribed by a social leader. Utilitarianism accords rights to individuals only to the extent that rights increase the sum of utilities (or social welfare). As some people will experience a greater increase in utility from consuming a good than others, the outcome will improve if these people are allowed to consume units of the good than would otherwise be consumed by those others.¹⁷ This is acceptable to many people who believe that rich people have a lower marginal utility of consumption than poor people, and that redistribution to benefit those who have less would therefore be just. But this justification for redistribution is weak: as in all consequentialist theories, it is not clear why one should optimize the specified consequences (utility, god's pleasure, equal opportunities, etc.). The opinions of those who disagree with the goal do not count, and have no influence on the final outcome. An economic theory that was based on utilitarianism would not truly respect individual freedom, and the state or policy maker would again not be neutral about the goals of society.

The methodology of neoclassical economics is influenced by liberal, utilitarian, and conservative ideas, and cannot be identified with any single ethical theory. Utilitarianism, however, enters only through welfare economics and the concept of a social welfare function. It would be possible to replace this criterion of optimality with a criterion from a different ethical theory without giving up anything essential to neoclassical theory. Similarly, conservatism influences neoclassical economics only until property rights are well established; it is clearly possible to use a different theory of justice with respect to property rights, while all of the technical analysis (with the exception of the rule that all changes should be Pareto improvements) can be maintained.

Because most of neoclassical economics is based on liberal theories, it is possible to replace the conservative and utilitarian strands of the theory by liberal criteria. This has the advantage of relating economics to a single ethical theory. Homogenizing the methodology of economics will help to clarify its assumptions, make them more coherent, and improve the credibility of their justifications. It will also make it easier to answer some of the criticism of neoclassical economics, which is frequently more ethical than technical.

¹⁷ Hausman and McPherson (1996, p. 104) point out that use of the average utility instead of the total utility as a determination of 'optimum' has the disturbing implication that one could reach a better outcome by reducing the population.

1.3 Liberalism

Unfortunately there is no universal theory of liberalism that could be used to define criteria for ownership and for the judgement of outcomes. Very different political theories are frequently summarized under the term ‘liberal’; the spectrum covers liberal theories of egalitarianism (Ronald Dworkin), contractarianism (John Rawls and James Buchanan), libertarianism (Robert Nozick and Murray Rothbard), as well as classical liberals like John Locke and David Hume. All of these theories have different implications about what freedom, rights, and justice are, and many of them claim universal validity.

Contrary to most other political theories, liberal theories share the notion that people’s interests and beliefs matter equally, and that because “our most essential interest is in getting these beliefs right and acting on them, government treats people as equals, with equal concern and respect, by providing for each individual the liberties and resources needed to examine and act on these beliefs.”¹⁸ That is, liberal theories are not willing to grant the state or the policy maker the right to answer the question of what constitutes ‘the good life’, and the notion of the ‘neutrality of the state’ is part of the liberal idea.

Most liberal theories relate the principle of neutrality only to the government or the state, and not to the citizens, because the state is the only institution that is allowed to regulate social interactions. However, the neutrality principle can also be applied to interactions between individuals. As a general criterion for justifications of power structures, Bruce Ackerman suggests that

[n]o reason is a good reason if it requires the power holder to assert:

- (a) that his conception of the good is better than that asserted by any of his fellow citizens, *or*
- (b) that, regardless of his conception of the good, he is intrinsically superior to one or more of his fellow citizens.¹⁹

This formulation has the advantage that it applies not only to governments, but also to situations that other liberal theories leave to the private realm.

¹⁸ Kymlicka (1989), p. 13.

¹⁹ Ackerman (1980), p. 11.

One of the most important differences among the various liberal theories is their specification of how much of which resources individuals need to be able to act according to their beliefs, and how and by whom these necessary resources are to be provided.²⁰ This question is closely related to the problems of private property and distributive justice: which things can be claimed for private and exclusive use, and what is to be shared with others?²¹

To be able to address this question it is necessary to define what exactly is meant by ‘resources’, and how resources differ from each other. In the broadest meaning of the word, ‘resources’ can be thought of all things that are potentially available for redistribution. They can be divided into two groups with very different properties: the first group consists of all resources that have been produced by humankind (created resources), while all resources that came into existence without human effort (natural resources) are part of the second group.

All created resources have at least one thing in common: they came into existence because their ‘creator’ had an incentive to exert effort to produce them.²² Following the nomenclature of classical economic theory, created resources are called ‘capital’ in the remainder of this dissertation.

Natural resources, on the other hand, must be divided further according to one important criterion: some natural resources are embodied in human beings, for example talents or body organs, while other natural resources are located outside of human bodies. Although this distinction is only of minor importance for a political theory that is not centered around individuals, it is very important for the liberal idea, which is traditionally closely related to the principle of individual self-ownership. This principle defines a birthright of the individual over her own body, her own talents, and her own goals, which cannot be taken away, and which is therefore not available for any kind of redistribution. Following classical economic theory, I will denote natural resources that are part of a human body as ‘labor’.

²⁰ The question “What induces people to form these beliefs?” has been at the center of the debate between liberals and communitarians in the 1980s. In response to the liberal focus on the individuals, communitarians like Alasdair MacIntyre, Michael Sandel, Charles Taylor and Michael Walzer have argued that an individual forms his beliefs in the context of a certain society with a specific narrative history, and that questions of morality and justice cannot be answered in the vacuum in which the individual is placed by liberal theories. See Mulhall and Swift (1996) for a discussion of the liberal and communitarian debate.

²¹ The issue of property and ownership goes beyond the claim that whoever physically owns a good is entitled to its full use; see Christman (1994) for a discussion.

²² Mason Gaffney (1995) points out that, in addition to being created by humans, created resources also have in common that they depreciate in value and will ultimately become obsolete, because they will be superseded by an improved created resource at some future time.

Self-ownership includes only a property right to one's own person, but not to any other natural resources, which are therefore still available to be claimed as property. Classical economists labeled these natural resources 'land'. Yet 'land' is now frequently understood only as 'site', while non-embodied natural resources include all resources, exhaustible and non-exhaustible, that are not created by human effort, and that did not come into existence as part of a human body. To avoid misunderstandings, I will call them 'natural opportunities'.²³

In addition to these differences among the resources themselves, it is also important to be precise about the different returns to their use. The return to capital is usually called 'interest', and the return to labor is commonly understood as 'wage'. Yet because neoclassical economic theory does not differentiate between capital and natural opportunities, there does not exist an unambiguous expression for the return to natural opportunities anymore. In classical economic theory, the return to natural opportunities (land) was called 'rent', and it was defined as what is left after the optimal quantities of other factors of production have been paid their market returns. In neoclassical economic writing, however, 'rent' is used as a synonym for producer surplus for any factor, not just for natural opportunities. This obscures the fact that the producer surplus in any market with an elastic supply schedule depends on individual actions, and that it will disappear unless there exist barriers to entry into the market, while the producer surplus for a natural opportunity depends solely on the demand schedule, and cannot be influenced by the owner of the natural opportunity. I will therefore use 'rent' in its classical meaning solely as the return to natural opportunities.

With this classification in mind, liberal theories can be separated according to their treatment of natural opportunities and labor. Robert Nozick's libertarian theory, for example, allows for exclusive ownership in labor and in natural opportunities: people own themselves, and natural opportunities belong to the person who first claims them without worsening the situation of others.²⁴ After a natural opportunity has justly been claimed as private property, it is not possible to justly redistribute it to someone else without its owner's consent.

On the other side of the spectrum are the theories of Bruce Ackerman, Ronald Dworkin, and John Rawls, who favor certain kinds of redistribution of natural resources. They treat labor in essentially the same manner as natural opportunities, which makes human talent subject to the same potential redistributive policies that can be applied to natural opportunities. They justify these redistributions by asserting that because the distribution of talent

²³ This term was suggested to me by Nicolaus Tideman. It would be possible to follow an existing tradition and refer to exhaustible resources as 'natural resources', and to non-exhaustible resources as 'land'. Yet I will not use this nomenclature, because it blurs the fact that exhaustible and non-exhaustible resources are equally non-human-made.

²⁴ Nozick (1974), p. 178. See also G. Cohen's critique of Nozick's position (Cohen, 1986, p. 123).

is simply a matter of luck, people cannot morally own their talents, so that talents ought to be regarded as part of a common pool of resources. As the talent is not owned by the person in whom it is embodied, these theories do not postulate that people own themselves. For this reason Cohen (1986) proposes to call adherents of this group ‘social democrats’ rather than liberals, because of the traditional identification of liberalism with self-ownership.²⁵

In between these positions are theories that acknowledge the principle of self-ownership, but are unwilling to grant private property rights in natural opportunities; for example the theories of Henry George and Léon Walras. These theories acknowledge that the justifications for private ownership in natural opportunities are rather unsatisfying, because they amount to one of the following two claims: either one is willing to adhere to the principle of ‘might makes right’, which is unacceptable for a theory that claims to take the individual seriously, or one is willing to accept the principle of ‘first come, first serve’, which also does not weigh all individuals equally, because it puts all the weight on earlier generations.²⁶ Neither is a good argument for property claims, especially not if property holders are asked to justify their property claims in neutral terms according to Ackerman’s definition of neutrality; both justifications violate part (b) of Ackerman’s principle of neutrality. Sometimes it is attempted to justify private ownership in natural opportunities by proposing that natural opportunities ought to belong to the first person who transforms them into something useful. This justification can be rejected as well, because of the ambiguity of the word ‘useful’. If, on the other hand, the transformation itself, and not its usefulness, is regarded as most important, it would not be possible to leave any natural opportunities untouched, for example the rain-forest.²⁷

Liberal theories in the first two groups do not consider the possibility that people might want to secede from the liberal state. In fact, they do not even need to consider this possibility. For the libertarian theories that allow private ownership in natural opportunities this possibility does not arise because there is hardly any unclaimed site left where people could migrate to. Theories that do not grant full human self-ownership do not sanction unrestricted secession because of a citizen’s obligations to others: if people’s talents are part of a common pool of resources, it would be unjust for an individual to secede and to unilaterally withdraw his talents from this common pool. However, if people own themselves, but have

²⁵ Cohen (1986), p. 113-115.

²⁶ Tideman (1991), p. 111.

²⁷ It can be argued that allowing people to claim any previously unclaimed natural resource as private property will lead to efficiency gains, because it gives an incentive to develop (and then to exploit) previously unknown uses for the resource. Yet this efficiency gain could also be realized through some form of patent on the new use of the resource, and therefore probably does not outweigh the ethical difficulties that arise from private ownership in natural resources.

equal claims to the use of natural opportunities, then the possibility of secession arises, and theories of the third kind need to address secession. In view of the likely lack of agreement about most of the rules that might be formed within a society, the possibility of secession seems to be an essential part of a truly liberal theory.

The theories that do not postulate human selfownership leave the question open of who actually owns people, as well as the question of who decides how to allocate the jointly owned human talent. The libertarian theories that advocate private ownership in natural opportunities assert that people are treated equally if those who arrive first can justly take everything, including the space to live, while nothing needs to be left for those who arrive later. Both are therefore rather unattractive for classical liberals, who will be more content with theories in the third category. The next section examines one specific theory in the last category that is based on writings of Bruce Ackerman and Henry George, and that is laid out in some of the work of Nicolaus Tideman; this theory is able to serve as an ethical foundation for neoclassical economic theory. While it would be a fascinating task to discuss all of its implications to neoclassical economics, I will restrict the discussion to the theory's implications to distributive justice; not because the other parts are of lesser importance, but because it is the particular approach to distributive justice and ownership that differentiates this theory from most other contemporary liberal theories. In addition, the question of distributive justice is the part of neoclassical economics that receives most of the criticism by non-economists and by economists of other schools of thought. In Section 1.2 I have argued that the conservative Pareto criterion that gives veto-power to anyone who is harmed by a departure from the status quo, cannot be a part of any liberal theory. In the following section I will argue that liberal theory is able to replace this criterion with a different approach to the question of property.

1.4 Neoclassical Economics and Liberalism

To some extent, the liberal theory that I propose as an ethical foundation of neoclassical economics has its roots in the liberalism of John Locke, who said with respect to property that

... 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. ... [F]or this *labour* being the unquestionable property of the labourer, no man but he can have a right to what that is once joined to, at least where there is enough, and as good, left in common for others.²⁸

²⁸ Locke (1690 [1980]), p. 19.

This famous statement can be applied to claims to natural opportunities as well as to claims to capital, the product of human labor. Starting from the premise that a person owns himself, one can argue that any product of human labor belongs to the person who created it. Claiming ownership in the person's product would mean to claim ownership in his labor, which is part of his person.²⁹

Locke suggests that a person may claim natural opportunities as property when he leaves at least as much for everybody else as he claims for himself. The question "How can you claim that this belongs to you?" can then be answered by "Because I produced it from natural opportunities, and I left opportunities of the same value for you and others."

This proposition does not seem to permit any actual claims if property is evaluated in a dynamic setting that weighs claims of living people no higher than claims of those yet unborn, because, under the assumption that an indefinitely large number of generations is still to be born, each individual would receive only an infinitesimal part of the natural opportunities.³⁰ Tideman (1991) points out, however, that what should be allocated is not the stock but rather the flow of natural opportunities. As long as the value of a person's claim to the *use* (as opposed to the eternal ownership) of natural opportunities does not exceed the claims everybody else can justly make upon the *use* of these opportunities, Locke's proviso that there be "enough, and as good, left in common for others" is satisfied.

To focus on the use rather than on the stock seems to be straightforward for non-exhaustible natural opportunities, but impossible for exhaustible natural opportunities. No matter how little everyone claims, at one point the stock of the resource will be exhausted. Yet it is not necessary that all people have a claim to the same physical resources, but only that all resource bundles that people can claim yield the same flow of value. Whoever does not like his bundle can then exchange it for another. In this context it is important to understand the origin of the value of a resource. This value depends on the use one can make of the resource, as well as on the alternatives one has to using the resource. The value of wood was high when there did not exist alternatives like coal or oil for heating and cooking, and the value of wood fell with the development of coal and oil ovens; the value of coal and oil fell as it became easier to extract them from the earth. The future value of coal and oil will depend greatly on the timing of the discovery of alternative sources of energy. The sooner this development will take place, the more appropriate it will be to use coal and oil now. The later this

²⁹ See Christman (1994, Chapter 3) for a discussion of the arguments against the natural rights doctrine.

³⁰ If the assumption of an indefinitely large number of generations seems too optimistic (or pessimistic?), it would be enough to assume that an unknown number of generations is still to come. Without a precise knowledge of for how many people exhaustible natural resources will have to last, it would be impossible to determine the just share of these natural opportunities the current generation is allowed to deplete.

development will take place, the more coal and oil need to be conserved.

While it would be straightforward to determine the correct value of every natural opportunity in a world with perfect foresight, determining the correct value becomes more complicated in a world with imperfect information. Tideman (1991) suggests that those who use exhaustible natural opportunities now should buy insurance against the possibility that they use more than their share and will have to compensate future generations.³¹

If everyone has an equal claim to natural opportunities, then people who use more than their share of the flow of value that comes from a natural opportunity need to compensate those who use less than their share. According to some critics, this implies that the product of human labor does not belong to the person who created it, because the product of human labor is usually a mixture of labor and natural opportunities.³² However, it is important to differentiate between natural opportunities and the changes made to natural opportunities as a result of human effort. The use of an appropriate concept of the value of natural opportunities makes this differentiation possible. To determine whether people use more or less than their share, one needs to define the value of the use of natural opportunities in a way that prevents the user from reducing his obligation by wasting the natural opportunity. In section 1.3 the return to natural opportunities was called 'rent'. Yet if rent is defined in the traditional way, as the left-over after the optimal quantities of other factors of production have been paid their market returns, rent would be negative whenever investments are needed. Tideman (1996) therefore defines the value of the use of a natural resource as the *opportunity cost of leaving the unimproved resource unused*, which underlines the fact that the value of the natural resource is unaffected by improvements.³³ This makes it impossible to decrease the value of the natural opportunity by using it inefficiently, and thereby to claim use of a lower share of natural opportunities than one actually uses.

It is clearly difficult to apply the ideas of common ownership in natural opportunities and compensation. Every single product would have to be assessed according to the value of the natural opportunities that it contains, and according to the value of the improvements to the natural opportunities that are caused by human labor. In spite of this, in a world with perfect information this would only be a tedious, but not an impossible task. Furthermore, in

³¹ It would be possible to introduce an insurance market that allows people to hedge against the possibility of having to pay compensation; the price of insurance would then be determined by the number of people who seek insurance, future claims for compensation, and people's probability to default. An alternative (hypothetical) solution would be to divide all exhaustible natural opportunities equally among the members of the first generation, and to require everyone to provide an equal value to his own children.

³² Rothbard (1974), pp. 108-109.

³³ An earlier version of this concept is developed in Tideman (1990).

order to assess the value of a theory it is crucial to investigate if the theory is able to reach an acceptable outcome under favorable circumstances.³⁴

Still, the question remains how it would be possible to move an existing society closer to a society that acknowledges common ownership in natural opportunities? To be able to leave the ivory tower of the theorist, it is necessary to take one's utopian ideas and to see if and how they can be applied to real life situations. Political theories that do not support an already existing order of society are especially prone to suggest the impossible. Fortunately the general liberal setting already exists in many societies, which makes it possible to ask how one can implement the idea of common ownership in natural opportunities in these existing societies.

1.5 Public collection of rent

As natural opportunities cannot be created by humans, it is impossible for humans to provide more or less of them, and the supply of natural opportunities is fixed at any point in time. Economic theory shows that if one levies a tax on a good whose supply is constant regardless of its price, and if markets are perfect, the whole tax will be borne by the owner of the good, and cannot be shifted to the user. A tax that cannot be shifted offers a possibility to transfer some or all of the benefits that the natural opportunity provides from the owner to the society at large. For the tax to be neutral, so that it does not distort any economic decisions, it is necessary to use a value as the tax base that does not vary with the use of the natural opportunity. The definition of the value as the opportunity cost of leaving the unimproved natural resource unused proves to be very important.

While there is little theoretical difference between various natural opportunities like sites, water, air, minerals, the radio spectrum etc., it will be difficult in practice to apply to most of them the concepts of taxation of users and compensation of non-users. A completely justifiable system of compensation would be so complex that it might be unworkable in a world with imperfect markets.³⁵ Although it seems impossible at this time to establish a completely just society, it is nevertheless important to investigate the consequences that a move in

³⁴ Much of neoclassical theory assumes an unrealistic world of perfect information that has established perfect competition in all markets. In addition, many philosophers have created an imaginary world as a setup for their ideas. John Rawls defines an 'original position', in which the rules for his ideal world are created, and uses a 'well ordered society', in which "citizens have a normally effective sense of justice" (Rawls, 1989, p. 6) as the background of his social system. In his defense of utilitarianism, Richard Hare (1981) emphasizes that most evaluations of moral consequences are beyond human capability, and ought to be done on a critical level by someone like an 'archangel', who is able to take all consequences into account.

³⁵ Tideman (1992), p. 281.

this direction will have. If one wants to establish at least a partial system of compensation, it may be funded from the proceeds of a tax on the value of the natural opportunity 'sites'. A site is impossible to move, difficult to hide, and there already exists a long tradition of assessment of sites to establish its value that makes sites attractive for immediate economic tax policy. It will be far more difficult to determine a non-distortive tax base for a tax on the use of air, for example for the right to pollute it, or to generally levy a tax on the private use of goods that contain natural opportunities.

In the classical economic literature the expression 'land' is used as a synonym for 'natural opportunities', but its usage has been changed to mean 'site' in neoclassical economic terminology. There exists a large theoretical literature that is referred to as 'land value taxation', even though it deals primarily with site value taxation. To avoid misperceptions, I will follow the neoclassical nomenclature and use the words 'land' and 'site' as synonyms in the remainder of this dissertation.

Although the idea of a tax on site value as a non-distortive tax goes back to the Physiocrats,³⁶ it is commonly associated with the writings of Henry George, who advocated this tax as a means to alleviate the injustice caused by the private ownership of land.³⁷ Before one advocates the introduction of such a tax, one has to consider that the implementation of a tax on land value in an existing society with an established system of private ownership of land implies the confiscation of established property. It is necessary to investigate either if this confiscation is unjust in itself, and if one either needs to abandon the whole idea because it would create more injustice than it could remove, or if one has to compensate the previous owners of the sites for their loss.

The fifth amendment to the constitution of the United States contains the so called Takings Clause, which states that private property can only be confiscated if just compensation is paid to the owner. Yet there is no general agreement in the legal literature as to what extent the Takings Clause applies to land value taxation.³⁸ Henry George pointed out that there already exists a precedent, because the fourteenth amendment to the constitution of the United States declares that no compensation shall be paid for the emancipation of any slave.³⁹ If a society comes to decide that private property in land is as unjust as private property in another human being, then it might also decide that it is proper not to compensate any owner

³⁶ See for example Quesnay (1756 [1963]), p. 232.

³⁷ George (1879, 1881).

³⁸ See for example Michelman (1967), Epstein (1985), Tideman (1991).

³⁹ George (1879), Book VII, Chapter 3.

for a site that he has held unjustly.⁴⁰

If it is just to tax the rent that natural opportunities provide, then, from an ethical point of view, such a tax ought to be implemented irrespective of its economic consequences. Frequently, however, the objection is made that the extra construction that would result from the removal of taxes from structures would have so many negative economic effects that, even if it is just, the social distress that such a tax would create is so great as to make this tax undesirable. Before one advocates a tax on rent, it is therefore necessary to decide if its economic consequences can be considered as so harmful as to preclude its implementation.

At this point I am leaving the strictly non-consequentialist liberal framework by asking the consequentialist question: “What harm might be caused if the theory is implemented?” This seems to be a necessary step if one wants to apply non-consequentialist theories to the real life with its potentially large adjustment cost, and it is doubtful if anyone would ever advocate the actual implementation of a non-consequentialist theory without considering the impact on existing social structures.

An additional motivation for the analysis of the economic consequences of a tax on rent comes from the fact that there is no general agreement about what these consequences are. Economic theory predicts that a shift from a tax on capital (which has an elastic supply schedule) to a tax on land (which has a completely inelastic supply schedule) will remove the distortion that is caused by the tax on capital and will increase the incentive to supply more capital.⁴¹ Most economists agree about the validity of this theoretical prediction, but there is considerable disagreement whether such a shift actually influences people’s behavior in practice. The disagreement emerges from the empirical economic literature, which has been unable to confirm the theoretical prediction of an increase in the supply of capital as a result of the tax shift. This has been used as an argument against land value taxation, on the grounds that a shift from a tax on capital to a tax on land does not provide any visible benefits in practice, while the change of tax regimes would cause unnecessary adjustment costs in the existing world with its imperfect markets.

The empirical part of this dissertation focuses on the effects of shifting a part of the property tax from buildings to land (two-rate tax) on construction in 15 cities in Pennsylvania, the only state in the United States that allows its cities to tax buildings and land at different rates. The analysis shows that the revenue-neutral tax shift led to a significant increase in the value of construction for the municipalities in Pennsylvania who chose to implement it. This result answers the question about the efficiency of the tax in the real world. Yet it does not

⁴⁰ See also Tideman (1988, 1991, 1992).

⁴¹ Further implications of a tax on land value are discussed in Chapter 2.

solve the question whether a higher value of construction is actually *desirable*. The negative externalities of construction, like environmental harm, noise, and congestion, are well known, and one might decide that they outweigh the positive effects of any construction activity. There is evidence, however, that the cities in Pennsylvania that adopted the two-rate tax did so exactly because of its stimulating effect on construction, which they considered desirable because it would help them to overcome their economic distress. In addition, economic theory suggests ways of internalizing construction externalities, for example through Pigou taxes.⁴² This internalization has the advantage of being in harmony with the liberal framework, because it preserves the individual freedom of decision while taking account of the harm that these decisions cause to others.⁴³

It has been argued that the concept of the two-rate tax is not supported by the ethical framework. The expected effect of a *partial* tax shift is an increase in construction activity *and* an increase in the value of land, because untaxing structures decreases the cost of new construction, which will lead to an increased demand for land. Any revenue neutral tax shift will therefore result in a higher private return to owners of parcels in areas with high optimal capital-to-land ratios. However, the two arguments should be kept separate: first, the tax shift away from the tax on structures is supported by the liberal theory because it leaves a higher return to created resources to the owners of these resources. Second, it is frequently (and erroneously) claimed that a tax on land value would destroy the incentive to develop the land; this study shows that, on the contrary, the two-rate tax increases the incentive to develop the land. There is no indication that a shift to a 100 percent land-only tax (which would not be revenue neutral anymore) would yield different results, and it would be possible (and recommendable) to raise the tax differential between the land on land value and the tax on structures further. This would eliminate gains that are momentarily still realized by the owners of more valuable land, and restore the coherence of the policy with its philosophical motivation.

1.6 Plan of the Study

The following chapter provides a survey of the theoretical arguments for a tax on land value. Land value taxation has already been applied in various countries throughout the twentieth century. The chapter gives a brief summary of the experiences that those countries have had with the tax, and examines in greater detail the application of land value taxation in

⁴² Pigou (1918).

⁴³ It ought to be remembered that the existing tax on structures created the first (distortive) impact on people's decisions, and that the tax was probably not implemented with the goal to reduce construction activity but to create revenue for the government, and that the effect of the (revenue neutral) tax shift from structures to land is to restore the undistorted condition.

the United States. Pennsylvania is the only state in the United States that allows its cities to tax land and structures at different rates; few empirical studies have been undertaken so far to determine the effect of the tax on construction activities, and none of them is technically very sophisticated. All of these studies use data on the total value of construction per capita as the dependent variable. However, because it often happens that municipalities issue no building permit in a particular year, the distribution of the total value of building permits has a mass point at zero and is definitely not normal. The complexity of the distribution of the total value of permits, particularly when the number of permits is small, suggests taking advantage of the fact that the Bureau of the Census publishes monthly data regarding the *value* and the *number* of building permits for municipalities in the United States. Thus one can analyse separately the number of permits (a non-negative integer) and the value per permit (a real number) before multiplying them together to obtain the total value of permits.

If one wants to examine the impact of the tax on the number of buildings that are constructed at a given time, an analysis that approximates the true discrete distribution with a continuous distribution can lead to wrong results. A common approach to overcome this problem is to use either the Poisson distribution or the negative binomial distribution, together with a maximum likelihood technique. Chapter 3 reviews the literature that deals with these two distributions, and shows their commonly used derivations and specifications. Yet it turns out that the usual specification of the negative binomial distribution is suboptimal, and that a different specification is able to model the heteroskedasticity in the data more closely. The chapter shows the derivation of the alternative specification, and explains how this specification can improve upon the usual approach.

Application of the maximum likelihood technique becomes very cumbersome when the distribution of the data is not available in a closed form solution, which explains the frequent use of either the Poisson distribution or the negative binomial distribution to describe discrete data. It is possible, however, that the true distribution of the data is even more complex, and that it cannot be expressed as a closed form solution. This difficulty can be overcome with a Markov Chain Monte Carlo method, which yields an approximation of this complex distribution, and allows a statistical analysis of the coefficients of the data. Chapter 3 provides a brief survey of this estimation technique and the relevant literature, and motivates the application of this approach to the problem at hand.

The first part of Chapter 4 describes the data regarding the number and the value of building permits that can be obtained from the Bureau of the Census, explains the selection criteria for the municipalities used in the study, and motivates the use of the independent variables. The second part of the chapter summarizes preliminary results that were calculated with several least squares and maximum likelihood models. By comparing and evaluating estimation results that were obtained with the program LIMDEP, this second part also shows why the negative binomial distribution is more appropriate for this data than the Poisson

distribution.

Chapter 5 presents two models of the number of building permits that use a negative binomial distribution with the specification developed in Chapter 3. The first model seeks to explain the number of building permits as a nonlinear function of population density, income, lagged population change, and the tax differential between the tax on land and the tax on structures. It employs a graphical analysis to determine the best functional form for each independent variable, and describes a way to deal with serial correlation in the data. The second model explains the number of building permits as a fixed effects model, and introduces into the analysis the idea of an economic threshold, below which generally observable factors do not influence the construction decision anymore. While both models are successful in establishing the advantages of the new way of dealing with the negative binomial distribution, they fail to show a statistically significant influence of the tax differentials on the number of construction decisions.

Because a negative binomial distribution, which can be viewed as a mixture of a Poisson and a gamma distribution, might not describe the data correctly, it is useful to examine additional distributions. Chapter 6 presents an analysis of the number of building permits with a distribution that combines the Poisson and the lognormal distribution. The estimation uses the Markov Chain Monte Carlo method, the Gibbs Sampler, that is described in Chapter 3. Contrary to the analysis with the negative binomial distribution, the results indicate that the two-rate tax has a positive and statistically significant impact on the level of construction.

Chapter 7 describes the analysis of the value per building permit. The dependent variable is now a real number, and histograms of the data show that an assumption of normality can be justified. The model presented is a linear fixed effects model, and it is estimated with weighted least squares to take account of heteroskedasticity. While the tax differential has a statistically significant impact on construction if no dummies for the municipalities are present, it loses its significance once these dummies are introduced into the model.

The final conclusion of this study, given the available data and assuming that the statistical specification of the models in Chapter 6 and Chapter 7 is correct, is that the two-rate tax has a significant effect on the level of construction, but not on the value of construction per permit. When the results of the two analyses are combined, the effect on the total value of construction is found to be positive and significant. Chapter 8 summarizes and discusses the results obtained in Chapter 4 through 7, examines potential omissions of the analysis, and provides suggestions for further research.