Henry George's Ingenious Tax:

A Contemporary Restatement

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ABSTRACT. Henry George (1839–1897) has left an intellectual legacy which is shrouded under a cloak of controversy. "Professional economists who focused attention on the single-tax proposal and condemned Henry George's teaching, root and branch, were hardly just to him . . . ." (Schumpeter 1954, p. 865). This essay tries to do justice to Henry George from the point of view of economic theory and relevant economic practical questions in 1997. The single tax proposal is looked at from the point of view of constitutional economics, and the wider applicability of Henry George's basic notions is emphasized.

I

Introduction

HENRY GEORGE (1839–1897) left an intellectual legacy which is shrouded under a cloak of controversy. "Professional economists who focused attention on the single-tax proposal and condemned Henry George's teaching, root and branch, were hardly just to him . . . ." (Schumpeter 1954, p. 865). This essay tries to do justice to Henry George from the point of view of economic theory and many relevant practical questions that we face in 1997. The single tax proposal is looked upon from the point of view of constitutional economics, and it emphasizes the wider applicability of Henry George's basic notions.

In order to understand Henry George's central message, it is important to anchor it in the ocean of economic literature. Henry George was not making a modest tax proposal. He was not an expert in real estate taxation, as one might think upon reading many renditions of his scheme (Hooper, 1993). In order to understand George's contribution, it is important to make

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a distinction between a specific proposal that can be implemented and an entire system which, upon implementation, creates a framework of rules that is itself self-enforcing. Henry George proposes a fiscal constitution which, due to the single tax requirement and the specific meaning he gives to the notion of *land* is indeed a self-enforcing system of rules. George offers a veritable constitution that has a multitude of ramifications and a large variety of different applications often overlooked in the literature. While the first section of this article deals with the major criticisms of Henry George in the context of constitutional economics, Section II explores the wider applications of George's basic notions. It appears that the George system is particularly well-suited for promoting economic development, and most particularly in those precise circumstances where a market economy is in need of further growth and development. This condition is, of course, currently most urgently present in Central and Eastern Europe which, in different ways, is groping towards the establishment of new economic systems built on the debris of the state socialist economic orders of the old Soviet type that collapsed in 1989. This is the subject of Section III.

II

Major Criticisms of George

CRITICISM OF HENRY GEORGE'S tax proposal is widespread. Sometimes his scientific writing is simply brushed aside as the tinkerings of an outsider. Often times his work is ignored completely. Invariably, his critics fail to see the systemic nature of his policy proposals. The different parts of George's economics are interrelated and support each other.

In principle, there are three basic substantive arguments aimed at his work and one that had better be termed "rhetorical". Joseph A. Schumpeter, who also has lavish praise for George, offers all four arguments (Schumpeter, 1954). We can therefore take his formulations as a convenient starting point for a centennial reappreciation. Before doing that, however, it is probably sensible to briefly restate George's program in the concise form in which he put it: "This, then, is the remedy for the unjust and unequal distribution of wealth apparent in modern civilization, and for all the evils which flow from it; We must make land common property" (George, 1879, p. 328). Implementing the principle of common property in land, George wanted to fully tax the land rent but leave everything else, including income, transactions, and the improvements upon land untaxed.

The first quote from Schumpeter contains both the first and substantive argument as well as the rhetorical charge typically levelled against George. Schumpeter, in discussing the physiocrats and notably Quesnay, builds a bridge between the physiocrats' single tax (*un impot unique*) proposal and the one offered by Henry George a century later. He puts this discussion into the general context of physiocrat economic policy recommendations. Schumpeter wrote,

> Finally we must not forget that French agriculture in 1760 was not interested in protection: there was no "danger" of large wheat imports as a normal phenomenon; and free trade in agricultural products would have, if anything, increased their prices. We shall presently discover reasons for doubting whether Quesnay would have been a thorough-going free trader if he had written in 1890. Similarly, as regards his single tax, we must distinguish the common-sense idea from the trappings that made it an object of ridicule. To simplify and rationalize the French system of taxation by basing it upon a tax on net income was evidently a sensible idea. To base it *exclusively* on such a tax was a doctrinaire's way of putting this idea. To base it exclusively on a tax on the net rent of land was Quesnay's way of applying his theory that the net rent of land was the only kind of net income in existence and that any tax must ultimately fall upon it in any case. This theory may be untenable. Even if it were tenable as an abstract proposition, its application to the practical question of taxation would be indefensible, because the mere presence of friction in the system would be enough to produce net returns other than the rent of land. But the value of the fundamental idea is not entirely destroyed by this particular twist. Moreover, the suggestion to tax the pure rent of land, in view of the fact that it was then not directly taxes at all, carried sense whatever the frills in which it was presented—sense that cannot be claimed for later proposals of a similar nature, such as Henry George's. The physiocrat contribution to public finance in fact stands out well in the group's textbook on it, Mirabeau's *Theorie de l'impot* (1760). This work—Dupont called it "sublime"—relieved the stress upon the single-tax panacea by properly emphasizing the importance of administrative reforms, of revenue from the *domaine*, the mint, the post office, a special tax on tobacco production and a salt tax: all of this helps to remove the stigma of freakishness that has been put upon the *impot unique* (Schumpeter, 1954: 230–231).

Despite the apparent harshness of Schumpeter's verdict about Henry George, later in the book Schumpeter heaps lavish praise on George. The notions central to Schumpeter's discussion are two: the substantive argument is that there may be friction in the system making the single tax proposal practically non-viable. Second, the rhetorical argument embodied in such notions as "frills" and "freakishness," also "panacea," suggests that there is a sensible basic idea but that it has been overblown by "doctrinaire" zeal.

What conceivable "frictions" did George have in mind? In Charles Hooper's entry on Henry George in the *Fortune Encyclopedea of Economics*, the possibility of clearly separating improvements from land rent is challenged. Hooper wrote:

> Henry George's proposed tax on one piece of land, is, in effect, based on the improvements to the neighbouring land. . . . And what if you are your "neighbour"? What if you buy a large expanse of land and raise the value of one portion of it by improving the surrounding land. Then you are taxed based on your improvements. This is not far-fetched. It is precisely what the Disney Corporation did in Florida. Disney bought up large amounts of land around the area with plans to build Disney World and then made this surrounding land more valuable by building Disney World. Had George's single tax of land been in existence, Disney might never had made the investment. So, contrary to George's reasoning, even a tax on unimproved land reduces incentives (Hooper 1993; 790).

Hooper's is a well chosen example to illustrate Henry George's system of taxation at work. The Disney Corporation (or else the developer of an airport or some other such facility) can indeed largely retain the externalities generated through the project and use them for financing the original investment. In identifying the site, the developer will try to find an expanse of land which is large and has not yet been developed. This will be marginal land with very low land rents. When pursuing the project (that is, a park, an airport), the value of the land is increased as a consequence of the improvement. According to George, the improvement remains tax free. Due to this improvement, the land *adjacent* to the facility and in the hands of the developer also increases in value. This increase is dependent upon the operation of the facility and can be fully captured as an improvement. For instance, hotel chains in the case of the park, or industrial and service facilities, motels, car rentals, parking lots and the like in the case of an airport can be allowed to operate on the remaining land, the lease reflecting the increase in the value of the land due to the improvement, and these remain tax free, also. Obviously, the developer has a maximum incentive to use the developed land to its fullest extent; leaving it unused or underused would impose an (opportunity) cost on him as a consequence of profits foregone.

Every expanse of land, of course, has its limits and there will be tracks of land still devoted to their original use, such as extensive farming or ranching. As a consequence of the improvements through the development efforts, the adjacent land has increased in value but not itself been improved. The land rent has risen. This land rent is what George envisioned would be taxed away. It will therefore become increasingly expensive to use this land in its original extensive way as farm or ranch land. Taxing the land rent makes extensive ranching or farming less and less attractive. Due to the taxed land's proximity to the development, the farm or ranch land needs to be re-allocated to more productive purposes, and the Henry George tax drives this process of re-allocation along. In consequence, although the original improvements remain untaxed, the tax base nevertheless is increased beyond what it would have been if, instead, taxes were levied on realized income. George's tax of the land rent is a tax on income potential and not on income realized. It therefore does not impose an excess burden as does the income tax, which stifles the optimal deployment of personal effort and resources.

Far from constituting a friction in the system—even in the example invoked by Hooper—the system operates as designed and without any friction at all. Interestingly enough, this system was used in the history of the United States for the development of the continent, since railroad companies received in compensation for laying the track, land adjacent to the track. By putting down the track, the adjacent land increased in value. The improvement realized through laying the track was used to finance building the railroad in the first place.

The second type of criticism frequently levelled at Henry George concerns his treatment of property rights. The criticism has two aspects. On the one hand, George is said to lack an understanding of the vital role the institution of private property plays in economic development. Secondly, the mono-causalistic explanation of all types of poverty with the institution of private property is criticized, even to the extent that George has been put into the same intellectual corner as the anarchists. Schumpeter, again, provides a fine example of this type of criticism, as follows:

> Mikhail Bakunin (1814–76), Marx's pet aversion, has no place in a history of analysis, as he himself would have been the first to admit. But there was another anarchist communist or communistic anarchist who did present a piece of analysis: Weitling, the founder of "Communia" in Wisconsin. His particular plan does not concern us, but his theory of poverty does because it seems to enjoy a kind of immortality: it

always turns up again. It is of the type of social criticism that, like Henry George's or F. Oppenheimer's traces poverty to private property in land (Schumpeter, 1954; 458).

Ignoring Bakunin and Weitling for the moment and concentrating on both Henry George and Franz Oppenheimer, we find that the charge is incorrect. Neither writer misunderstood the importance of private property—and especially private property in land—for the development of the market economy. As for Oppenheimer, he argued against feudal property which he called a land lock (Bodensperre) on economic and cultural development. He strongly argued for private property in land, notably also private property in family owned farms, and so did his most important student, Ludwig Erhard, who introduced the social market economy in Germany after 1948.

As for George, he was arguing for private property in land but opposed private property in the land rent. The distinction is important, because the single tax requirement is, at the same time, an effective and complete protection of the private property in the improvements made to land.

In this context, we must notice the potential tension between the concept of private property and the concept of taxation. Taxation, an involuntary transfer of resources from the private sector to the government, is by itself a dilution of private property rights and the right to private property itself. That is why several modern constitutions prohibit "expropriatery taxation" (typically considered to be taxation in excess of fifty percent). By restricting taxation to land rent and thereby freeing all other types of property from the burden of taxation, George effectively strengthened the guarantee of private property. This strengthening re-enforced the function that the institution of private property can play in the development of the market economy.

Transferring "rents" in a lawful way has proved impossible. Efficient rent seeking is extremely hard to organize (Tullock, 1980; Tullock, 1988). Schumpeter advanced the same charge of mono-causal simplistic explanation against Franz Oppenheimer. Schumpeter wrote,

> Franz Oppenheimer (1864–1943) was a man of mark, a leading Zionist, a "positivist" sociologist, who is not likely to lose his place in the history of that line of thought, a powerful teacher who shaped many growing minds and did much to keep the flag of economic theory flying by spirited controversy. His Henry George attitude toward private property in land in itself would not suffice for my refusal to go at length into his doctrines (Schumpeter, 1954: 854).

In anticipating the modern theory of rent seeking both Franz Oppenheimer and much more clearly Henry George emphasized the presence of market failure. The market failure is due to the existence of rents which stand in the way of economic progress. While emphasizing monopolistic structures, George correctly identified an important source of market failure. Removing unproductive rents on natural resources by socializing them, provides a powerful change in the incentive structure prevalent in any economy. Yet, it must be emphasized that the presence of rents is ubiquitous and therefore not a single cause in the sense Schumpeter made it appear. To repeat, George re-enforced private property rights by shielding private property from taxation and limiting taxation to what he called the land rent only.

A third argument levelled against Henry George concerned the fertility of the single tax. Again, Schumpeter has an extensive discussion of this point that is worth repeating:

> [W]e cannot afford to pass by the economist whose individual success with the public was greater than that of all authors on our list, Henry George. The points about him that are relevant for history of analysis are these. He was a self-taught economist, but he *was* an economist. In the course of his life, he acquired most of the knowledge and of the ability to handle an economic argument that he could have acquired by academic training as it then was. In this he differs to his advantage from most men who proffered panaceas. Barring his panacea (the Single Tax) and the phraseology connected with it, he was a very orthodox economist and extremely conservative as to methods. They were those of the English "classics", A. Smith being his particular favorite. Marshall and Boehm-Bawerk he failed to understand. But up to and including Mill's treatise, he was thoroughly at home in scientific economics; and he shared none of the current misunderstandings or prejudices concerning it. Even the panacea—nationalization not of land but of the rent of land by a confiscatory tax—benefitted by his competence as an economist, for he was careful to frame his "remedy" in such a manner as to cause the minimum injury to the efficiency of the private-enterprise economy. Professional economists who focused attention on the single-tax proposal and condemned Henry George's teaching, root and branch, were hardly just to him. The proposal itself, one of the many descendants of Quesnay's *impot unique*, though vitiated by association with the untenable theory that the phenomenon of poverty is entirely due to the absorption of all surpluses by the rent of land, is not *economically* unsound, except in that it involves an unwarranted optimism concerning the yield of such a tax. In any case, it should not be put down as nonsense. If Ricardo's vision of economic revolution had been correct, it would even have been obvious wisdom. And obvious wisdom is in fact what George said in *Progress and Poverty* (chapter 1, book IX) about the economic effects to be expected from a removal of fiscal burdens—if such a removal were feasible (Schumpeter 1954: 864–5).

In principle, the fertility of the George tax is an empirical question. Once we understand that the tax is a one hundred percent tax on the rent of land, and once we determine the tax base according to Henry George's definition of land (see Section II), the tax yield can be estimated. What is important from a theoretical point of view, however, is a different matter. Firstly, as Schumpeter correctly pointed out, the George tax has no excess burden. To the extent that it replaces other taxes, it moves the entire economic system onto a different (higher) activity level. This by itself increases the rent, and therefore also the tax revenue.

The fertility of the tax base also depends on the expenditure size of the government budget. To the extent that government expenditures are not purely consumptive but result in genuine investment, they will facilitate economic activity and increase land rent. This in itself poses an important incentive for any government operating under the Georgist scheme. Schumpeter (and with him pretty much all the critics of Henry George) failed to notice the different activities level and the nexus between expenditures and revenues. This accounts in large measure for the criticisms levelled at George's proposal. Completely unnoticed by George's critics, however, was his very specific definition of land. To this we now turn our attention.

II

George's Definition of Land

HENRY GEORGE'S DEFINITION of land is a residual definition. As is customary, he distinguished between the three traditional factors of production, capital, labor and land. Somewhat unusual but in order to avoid overlapping categories (such as human capital), George defined land as that factor of production that is neither capital nor labor. Hence, the notion of land is totally separated from the surface of the earth. It is rather tied to the notion of economic rent, a theoretical concept, not necessarily a tangible one. In this way, as we shall see shortly, land in George's category can actually also be a non-tangible object such as an airwave. From the point of view of taxation, the relevant distinguishing characteristic between capital and labor on the one hand, and land on the other, is that capital needs to be expended and labor requires an exertion, that is, in both cases a human choice is needed. Both labor and capital can therefore be withheld from production. This is likely to happen if their product were taxed. On the other hand, land cannot withhold itself. Land is there and can be appropriated at will. It is for this reason that the taxation of the land rent does not lead to an excess burden. This is what recommends the land tax in George's system of taxation.

In order to document this important definition, let us take a look at the precise way in which George stated it:

> land, labour and capital are the three factors of production. If we remember that capital is thus a term used in contradistinction to land and labour, we at once see that nothing properly included under either one of these terms can be properly classed as capital. The term land necessarily includes, not merely the surface of the earth as distinguished from the water and the air, but the whole material universe outside of man himself, for it is only by having access to land, from which his very body is drawn, that men can come in contact with or use nature. The term land embraces, in short, all natural materials, forces and opportunities, and therefore, nothing that is freely supplied by nature can be properly classed as capital. A fertile field, a rich vein of ore, a falling stream which supplies power, may give to the possessor advantages equivalent to the possession of capital, but to class such things as capital would be to put an end to the distinction between land and capital, and, as far as they relate to each other, to render the two terms meaningless. The term labour, in like manner, includes all human exertion, and hence human powers whether natural or acquired can never properly be classed as capital (George, 1881: 38–39).

There are a large variety of "objects" to which Henry George's single tax proposal can be applied. Let us consider twenty-five of them in no particular order. In each case, we must, however, apply a simple test by answering two questions: Can the object whose rent is to be taxed be classified as capital? Can the object whose rent is to be taxed be classified as labor? Only if both these questions were answered in the negative, do we confront a manifestation of what George called "land," and the implicit land rent be made subject to George's single tax.

Water

GEORGE CITES this example himself. Water is clearly neither capital nor labour. Water can generate rents in many different forms. George himself mentions "water power." In addition, many different dimensions of water quality can be important. From its accessibility to specific ingredients, for instance in the case of a health spa. The practice in Germany to denote specific locations as a spa (as in "Bad Homburg" or "Bad

Ems") gives an easy indication of a rent thereby derived. Clearly, this rent can be taxed, without producing an excess burden.

Wind

WIND IS ANOTHER resource that potentially has a use as a source of energy. Wind was used as such for many centuries in windmills and to propel sailing ships. Although at this moment there is little potential for levying a fertile tax on the siting of wind based electricity generators, the technology has not quite developed to that point yet. The future may well hold out for greater uses of wind technology and it may be an appropriate source of taxation. In order to protect that source, it is important to prevent it from being squandered. Optimal sites for wind-based electricity generation should not be barred or obstructed by other activities, such as construction, certain types of farming, and air traffic. Such impairment can only be allowed upon payment of the respective wind charge.

Mountainous Slopes

MOUNTAINOUS SLOPES PRESENT many special opportunities and advantages. They are in principle prime candidates for George's tax. We need not think only of the example George himself mentioned (that is, waterfalls), but also the special advantages ("a majestic view") afforded by a mountaintop site or an otherwise unobstructable view. Slopes are used for skiing and also for special forms of farming, such as wine growing. The purpose of the tax, again, is not only the generation of public revenue but also for pushing particular resources, in this case the mountain slope, to its most productive use. For example, if a dairy farmer happened to eke out an existence on the mountaintop and the development in the valley makes mountaintop locations much more attractive for residential or commercial use (such as a resort hotel), the mountain slope charge will force the dairy venture to respond to this new tax change by possibly giving up the mountaintop ranch, thereby avoiding the mountain slope charge. The dairy farmer will realize the (now increased) value of whatever improvements he has put on the land in the form of the ranch house, well dug, powerlines struck and so on, and move on to a location better suited for dairy farming.

River Beds and River Sites

THE SAME ARGUMENT we used in mountainous slopes can be applied to river beds, river sites with their multiple uses of transport, fresh water, refuse water, recreation, fishing, etc., all subject to Georgian river changes.

Lakes

LAKES AND OTHER surface water areas constitute a national resource that can be put to multiple use, including fishing, many forms of recreation, transportation and esthetic uses. In levying a tax on the rent of this resource, care must be taken to ensure the continued availability of the lake for its purely common community purposes, notably its function for the groundwater level and for the climate.

Minerals

THE CASE OF MINERALS is complicated because the value of a known mine can be readily established if the quality and the quantity of the mineral(s) were known, but exploration is itself an activity that brings about improvement and the value generated by such improvements accordingly must remain untaxed. Granting a tax deduction for the entire cost of exploration will not do, since many explorations will be carried out in vain. For that reason, the rent associated with the marginal extraction of natural resources cannot be easily taxed. Instead, auctions can be held for exploration grants for specific regions and for specific times, but preferably as inclusive as possible with respect to the objects to be explored. In this way, a maximum of diverse and commercially valuable information can be generated. This information can be used for assessing the value of the rent of the natural resources to be prospected. The exploration activities will be carried out to the fullest extent if the entire benefit achieved by the exploration can be extracted through the maximum exploitation of the natural resources found.

The information generated by exploration needs to be made public. This can be achieved by making exploitation subject to prior publicity of exploration results and taxing unpublished exploration results upon production as part of the land rent.

This issue is so important since most exploration efforts are focussed on only one or a few minerals, which is not in the interest of the taxing authority. The taxing authority wants to put the pool of (unknown) resources to their fullest possible use. According to Henry George's scheme, only the possible use, the rent, is taxable, not the actual use.

Air

IN MOST CASES, air is being polluted. Since this is an impairment (the opposite to an improvement) the opposite holds: it is 100 percent taxable and needs to be re-compensed in full. This can best be achieved by auctioning off clearly defined pollution rights, limited in terms of quantity, emission time, emission frequency, concentration, and time.

Positive uses of air can be made as by tapping into air movements (winds in order to generate energy) and by using clean air as an input in the production, such as in tourism and spa industries. These rents can be readily taxed according to the standard Georgian procedure.

Radio Waves and Spectra

RADIO WAVES AND SPECTRA form a natural resource that is accessed through specific technologies. These technologies can, in turn, be licensed. The spectra can be optimally exploited by imposing a regimen of regulation, and then auctioning the different derivabale rights off for limited periods of time and to the highest bidders. A current practice of attaching strings (for instance hours of public interest television) invites rent seeking and allows for bidders to reduce the bidding price and thereby the revenue.

It is interesting that repeat bidding for the same wave, as in the case of telephone numbers, because of the recognition value can invite a premium, therefore, no options should be given away for free. Rather the option to continue on a particular frequency or otherwise designated locus should be sold as well and separately.

Network Easements

IN ORDER TO MAINTAIN and operate networks, easements need to be granted, typically on land such as with railroads, gas lines, traditional telephone wires but also increasingly unrelated to land, and essentially related to regulatory arrangement. Modern cellular phone systems provide an example. The easements are clearly "land" (that is, a natural resource) in George's definition, and they carry a rent which can be taxed.

A modern state provides a very large number of such network easements, and this number is likely to increase substantially in the future. Here then lies a very fertile Georgian tax base that currently remains almost altogether untapped and is largely open to rent seeking under modern conditions.

The Peace Dividend

NATURAL RESOURCES COME in a pristine state but that can be endangered by war. Enjoying the use of natural resources generally conceived is itself a natural resource and therefore the rent of this enjoyment can be taxed away in the Georgian scheme as part of the peace dividend. Earl Thompson has shown in a different context that corporate tax payments are roughly equivalent to the value of the embodied capital defended. In fact Thompson thereby shows that the current corporate tax scheme is a rough approximation in the American case, of a Georgian tax, but only a rough one since it carries excess burdens (Thompson, 1974).

Since no defense system is foolproof, the peace dividend can be enjoyed only partially, and therefore the Georgian tax could only be roughly equal to the value of the defense actually rendered in expected value terms. Hence, the tax would be more like a peace insurance premium. This tax would grant an advantage by providing a revenue source for the military that would not be bound up with other political considerations, such as siting of bases, social programs, gender politics in the military or the like.

Cultural Heritage

ALTHOUGH CULTURAL HERITAGE is man-made, it is not made by any present living person. It needs to be re-conquered as the old German saying expresses it clearly: "Was Du ererbt von Deinen Vatern hast, erwirb es um es zu besitzen." This can be rendered in English only imperfectly, but it says that the heritage of the forefathers needs to be mastered so as to own it. In this sense, the cultural heritage is clearly a natural resource in George's sense. It can also be taxed as far as the rent is concerned. Consider a historic city ensemble with a church, a market square, the town hall, and the like. Obviously, this is choice real estate, and any particular lot could yield maximum revenue by tearing down a historic building, perhaps leaving just the front in sight, and erecting a new more efficient structure. This, however, could spread a negative externality on all the other existing structures, irrespective of their physical appearance, since the ensemble with just the one exception would have been destroyed. It is this difference summed over all real estate concerned which establishes the tax base.

By insisting on taxing this historical heritage rent, poor architectural choices can be prevented. It is here that the inherent wisdom of George's scheme becomes particularly apparent. With this scheme and its push for the most appropriate resource use, he avoids additional regulation (in this case zoning) that would otherwise have to be implemented.

Satellite Sites, Radio Spectra, Etc.

As scientific discovery advances, new natural resources get detected and technologies get developed that make these natural resources valuable. Although in this sense the rent is a function of human effort, a radio spectrum is no different from a valuable piece of land in George's theory. A paradise island that is unknown and has no inhabitants, although a paradise, is worthless. A radio spectrum for which there is no technology is worthless. However, as soon as the technology appears, there is going to be competition for that spectrum. This natural resource can be added to the legitimate tax base of the Georgian tax state, and the spectra and sites auctioned off for specific periods depending on technical conditions, for instance for the reasonable lives of satellites, ratio stations, phone company, security services or whatever else the use may be. Contract can actually be geared towards different technical conditions if auctions allow explicitly for innovative contract offers to be submitted.

Rule of Law

The proceeding point can be generalized. Any resource, even those natural resources that cannot be taxed, such as life, can only be enjoyed under a rule of law. The rule of law is being granted as a benefit to those who have citizenship, or residency rights, these being either natural or legal persons. A passport fee for persons and compulsory charges for companies assessed in terms of their ability to earn are the appropriate measures for taxing the rent derived from the rule of law.

Standards

Almost any commercially interesting activity relies on the presence, availability and general acceptance of standards in the market economy. Standards include weights, measures, audits or minimum standards of professional behavior of, for instance, nurses and doctors. These standards actually make it possible to undertake profitable market activities. An example from recent American history illustrates the point in two ways. In the United States, a rider was put on the appropriations bill of a regulatory agency to force that agency to enforce specific minimum sizes of automobile windshields. It was, obviously, in the interests of both the producers and consumers of automobiles to have regulations on windshield size and their quality. Windshields that do not allow sufficient view may cause accidents, and they may also increase liability claims. Windshields that have been preapproved by the federal government will not invite such liability claims, even if harm may occur.

In the headquarters of a foreign based automobile company in Englewood Cliffs, New Jersey, the appropriations rider was discovered shortly before it was to be passed into law by Congress. It turned out that the only company affected by the rider was this one single company based in Englewood Cliffs, which promoted a very specific model, by having expended a substantial advertising investment. Its model, for historical and appeal reasons, had to have a smaller windshield than standard American cars. In this particular case, the legislature did not adopt the rider, but the case shows clearly that for marketing of such commodities as automobiles, regulations even extending to windshield sizes are necessary and that this legislation can be misused so as to harm competitors. The lesson to be drawn here from a Georgian point of view is this: rent seeking can only occur if rents can be sought. The regulatory process as it creates a standard also creates a resource, which is akin to the natural resources George had defined. This resource should be taxed for non-producing users of standards, namely, all those who use standards made by others and publicly approved, such as through certification fees.

Time and Timeliness

In Europe, one of the most prevalent features for any visitor from abroad is the clock on church steeples, railroad stations, city halls and sometimes just in the middle of the way. It was at some time an important innovation to put people on time. Time and timeliness are important ingredients of market transactions, as they substantially reduce transaction costs. Guarding the time, making the time generally available and insisting on timeliness, is a resource to any economy. As a resource, it has a rent. A government that is able to keep the trains on time, makes sure nobody wastes time as he applies for licenses, hands in tax returns or pays speeding fees, a government that makes sure the docket of legal proceedings is kept short so that no time is wasted to expedite justice, is creating a valuable resource. Although not a natural resource, the rent here can be taxed without any adverse effect as long as marginal use of the services provided remains untaxed.

Auditing, Surveying, Etc.

No stock worth trading can be traded without proper auditing. No plot of land worth buying or selling can be bought or sold without proper surveying. The services here referred to are not improvements, since they do not improve anything that had been there. They make sure that people know what they are, where they are, and what they can do with them. These services are "market enabling" services, and they can be taxed to the total amount of the rent thus rendered.

Obviously, the service also needs to be provided. The provision itself can be expensive, and it needs to be recompensed. But the office itself does not have to be allocated to who performs the service. Producing and providing are separate activities. The service itself is clearly circumscribed and can be regulated. It does not have to carry its own rent. This rent is a Georgian rent and can be taxed fully by the respective government authority.

Air Traffic Corridors

Nobody wants airplanes to collide, and it is therefore for everybody understandable that air traffic corridors need to be defined. Once the definition has been accomplished, a rent has been created. Typically, those who do the defining can also pocket the rent, in this case typically the diplomatic service which doles out flight rights according to political preferences.

Obviously, nothing is wrong with using publicly created rents for publicly sanctioned purposes. Yet, it must be borne in mind that the diplomatic service (in the United States, it is the State Department, in other countries the Department of the Exterior) has a very small budget and a very large degree of discretion over resources. Other government departments, such as The United States Health and Human services, have a very large budget and hardly any discretion. Democracy is, after all, about controlling the budget. In this particular case, air corridors are typically allocated free of charge to countries with which amicable relations are being sought.

From a Georgian point of view, there is no reason why the air traffic corridors could not be auctioned. In addition, once auctioned, air traffic corridors need not be under the discretion of the Department of State. If defense issues are relevant, the respective military commanders can get involved in the auction, and they can bid for the rights. The results of their bids will be listed in the budgets to be approved by the respective parliament.

Currency

IN EUROPE, the scramble towards a European Monetary Union has revealed some truths about central banks and their activities that had typically been left in the research library. A well-managed central bank is able to generate substantial profits, which under normal auditing rules it can hide for quite a long time. The recent call of the German Minister of Finance, Mr. T. Weigel, to re-evaluate the gold holdings held by the German Central Bank and (as is provided by the law) transfer the accounting difference to the federal budget has raised eyebrows, but it also underscored the point that the provision of a stable currency is a great benefit for a nation and, more importantly, the benefit also falls within George's land category. Indeed, the currency *is* land in George's terminology. How can this be so? The currency is the result of human effort in the sense that only human effort could bring about the Central Bank, its policies, its guiding way of thinking (ideology) and the concomitant result. Yet, the end product cannot be appropriated by the Central Bank; under most constitutions, it is a free good. Here lies a rent, and this rent can be taxed.

Of course, quite habitually, states have used this right to tax the rent from creating a stable currency. The tax is called "seignorage," and in some situations it has been a fertile tax. It is, in particular, a fertile tax if a country with monetary stability attracts funds from outside, in particular countries with less monetary stability. Yet, the point is that the power to create stable money is a natural resource, and it cannot be taken away from a taxing authority for any other than a non-economic reason. To put the matter another way, the power to create money is a powerful and fertile source of taxation. Stable money is part of the Georgian canon of taxation as it has been explained above.

Since the issue is currently being debated in Europe, some additional clarification is justified. The Central Bank earns profit. The profit it earns is the difference between the currency issued on the one hand and the cost of production and transactions on the other. If a central bank were to exceed its limits by issuing more paper money than the market will need for its transaction purposes, the money will be rejected and roll back to that issuing central bank for refund in, say, foreign currencies. Only that central bank which issues the most stable currency will gain. Since there is always a spread between the cost of producing currency and the revenue from issuing the currency, the most stable policy-oriented bank would have, ceteris paribus, the largest profit.

It should be kept in mind that the revenues earned on issuing currency are an approximate but underestimated measure of the rent inherent in the authority to issue currency.

Weights, Measures, Etc.

SINCE THE DAYS of Adam Smith, standards have been recognized as forming an important input into any kind of transaction, but also into production processes. By establishing reliable weights and measures, the state creates a resource that is akin to a natural resource and the rent from which can be wholly appropriated in the form of a Georgian tax. Even if the state were to delegate this activity to a private institution, the rent can still be appropriated through certification fees and so on.

Public Data (Such as on Health, Population, Etc.)

PUBLIC DATA HAVE been collected by public institutions in Europe since about the period of the Renaissance. These data form a powerful resource for many activities for which they were not originally designed. Again, the rent from this resource can be appropriated by the state, and if the state delegated the authority to collect, store and manage these data, the authorization can be done through a fee process which collects the implicit rent.

Basic Research

WHAT HAS BEEN SAID about data can be extended and generalized for basic research as well. Of course, the use of particular bits and pieces of basic research should have a zero price, perhaps even a negative price. The general access to the knowledge freely floating within a commonwealth of scholars can be taxed, at least in some cases.

Home, Poverty, and Higher Education

THERE IS A RENT CREATED through basic and partly also through more advanced education. This creates a common property which in fact, constitutes a resource which carries a rent. Every citizen has a duty to acquire this knowledge. Sending children to school is a duty of the parents and a failure to do so carries fines or even imprisonment. Clearly, we are looking here at a tax that is raised in kind in order to collect rent from a common resource. The duty to attend school, in this sense, is not different from the draft, which is also economically speaking a tax in kind.

Access to the Internet (as Long as It Is Publicly Supported) Can in Principle Be Taxed.

HOWEVER, again, care needs to be taken not to tax the marginal use but the very rent that the internet by virtue of its existence and operation creates. Proposals to introduce a BIT tax for internet use such as the one by Freeman and Perez failed to meet this criterion. The authors imposed the following:

> This group proposed first of all the EU and all its Member countries should examine the potential of a new tax, the so-called "BIT" Tax to redress the gulf between the "Information Rich" and "Information Poor." [They argued that] fiscal policy must always change with the changing structure of the economy and political realities. Principles of public finance dictate that any tax should justify three basic criteria: 1. enlargement of the revenue base, 2. economy in collection, 3. social equity (Freeman and Perez, p. 22).

The suggestion may be interesting, but it is not appropriate from a public finance point of view.

The three so-called public finance criteria mentioned above, the enlargement of the revenue base, the economy in collection, social equity, do not correspond with what is commonly taught at Central European universities. The primary concern is efficiency in taxation, and the proposal proffered by the authors is a very poor example of that endeavour. Yet even on its own criteria it is poor. In all likelihood, with every particular jurisdiction being considered, the BIT tax would not enlarge the revenue base. It would be next to impossible to collect any taxes, and the social equity is somewhat in doubt. We just do not know much about the uses of a network that nobody will use, once it is taxed.

Freeman and Perez are vague about the basic principles of public finance. These principles include minimization of the excess burden, a reduction of the administrative cost and hassle, equity in consideration, acceptability as far as local customs are concerned and, of course, fecundity of the tax.

A positive restatement of the Freeman-Perez proposal is as follows: In all likelihood, this tax can also be best extracted *in kind*. Large institutions which connect a large number of users can be asked to share in the maintenance costs of the network. It makes little sense to charge individual users, since the value of the resource positively depends on the number of subscribers and active interactors. Access charges can be levied for allowing commercial use of the internet, but transaction taxes have rightly been recently agreed (by the European Union and the US American Government) not to be allowed.

Access to International Interaction (Passports, Bills of Certification)

More generally speaking, access to international interaction such as through travel, communication and the like, is a resource, which also carries a rent. The access can be taxed through fees for passports, certifications and access fees.

Specific institutions such as banks, insurers and the like, gain credibility and therefore a market place advantage through certification. This certification (typically also carries certain guarantees such as the promise from Federal Deposit Insurance Corporation to guarantee certain liabilities of lending institutions) clearly creates a rent. The certification itself can be an instance of appropriating the rent for the state. Clearly, the old system of bank chartering for a fee was not in violation of the Georgian system of taxation.

It appears that the Georgian taxation principle is pliable enough so as to be applicable in many different contexts, both modern and traditional. The single tax turns out to be a powerful taxation institution with many variations on the theme and the rent can be totally expropriated, while the increment added to the value of a resource should be one hundred percent tax free.

III

Conclusion

THIS BOUQUET OF 25 different applications of Henry George's single tax instrument includes phenomena that Henry George could not have considered. When George died a hundred years ago, communism was still on the rise and carried the seeds of great optimism and idealism in the minds of many people, including many scholars. In recent decades, the former communist-inspired, state-socialist economies have collapsed, and a large number of countries are searching for ways to reconstruct the economic systems. This implies the dual tasks of facilitating economic development during the transition from one economic system to another system. Under these circumstances, state authorities in transitional countries face the central task of economic-policy institution building. This task is complicated by a lack of resources: first, government revenues tend to be scarce, which is why money creation is often taken to finance projects. Second, tax revenues are often hard to collect, since the requisite institutions (public accounting, corporate accounting, trained tax officers, trained tax consultants and CPAs, business registrars, sometimes even reliable roles of chartered businesses) are lacking or incomplete. Older customs, tariffs, and border controls are used which in turn slows down economic development. Third, a large state-owned enterprise sector inherited from state socialist times tends to coexist next to a flowering subterranean economy, neither of them fully within a "rule of law." Corporate and commercial law, remain quite rudimentary in these economies.

On the other hand, the legacy of state socialism, despite the vast extent of destruction to both the natural environment and to the cultural heritage, does offer some positive perspectives and some options for reconstruction that have not been part of the standard economic policy advice from international institutions such as the World Bank. As one of the leftovers of state socialism, land and natural resources in general are still widely in state hands. This coupled with the absence of efficient market-compatible tax institutions, offers a chance to implement the Georgian system of taxation. To the extent that a transitional development scenario can be implemented which allows the market economy to grow and private property to assume tangible and transferable forms, such a scenario will create rents, which through a Georgian single tax constitution can be appropriated by the state.

This would indeed create a powerful incentive for state economic policy makers to carry through trustworthy economic reforms. Their budget constraint would be moved outwards to the extent that effective reform policies actually took hold. The plethora of applications of the single tax approach as illustrated in section II simultaneously translates into a plethora of tax instruments available to transitional governments. The Georgist alternative is preferred to the otherwise disastrous inflationary policies carried out in many of these countries by the revenue-starved national governments.

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