Evaluating the Theory and Implementation of Land Value Taxation

Zhiliang (Joseph) Wan

***Abstract*—Land value tax, a variant of the property tax, is a recurrent tax levied upon unimproved land value, which does not include the improvements of the land. In practice, a land value tax can be imposed on both land and its improvements with a higher tax rate on land. The motivation behind adapting a land value tax is to mitigate the negative impacts brought forth by traditional property taxation, which imposes the same tax rate on land and improvements. These negative impacts include distortion of economic activities and undesirable distribution of the tax incidence. In contrast, land value taxation has stronger theoretical support. It takes the unearned revenue of the landowners, promotes economic activities without incurring inefficiency, and redistributes income and wealth to promote equality. However, the theoretical case does not entirely reflect the challenges of implementation and political resistance that land value taxation encounter.**

***Index Terms*—Land value tax, theory and implementation**

I. Introduction

The most famous case for land value taxation lies in a book called "Progress and Poverty" written by American economist Henry George in 1879 [1]. The word "progress" in the title of the book refers to the unprecedented economic growth, industrial development, and urbanization that the United States experienced in the nineteenth century. Meanwhile, the word "poverty" draws attention to the appalling poverty and social inequality that coexisted with the unprecedented progress. Henry George attributed this perplexing phenomenon to problems that arise from the private ownership of land. Instead of suggesting a socialist approach to transfer the private ownership of land to the state, Henry George proposed a land value tax that confiscates the land rents not deserved by the landowners.

The notion of confiscation is justified because the landowners, especially those in rapidly developing urban areas, have benefited tremendously from the rise in land prices resulting from the development of surrounding communities without contributing [1]. As Winston Churchill put it, "roads are made, streets are made, services are improved… and all the while the landlord sits still" [2]. Therefore, it is fair for the government to take the unearned increase in land value by imposing a tax and return the value to the community responsible for the increase by using the tax revenue to fund economic growth of the community [3]. A property tax, which is levied upon improved land value, is not as effective as a land value tax in capturing the unearned increase in land value. This is because land value taxation is levied upon the value of the location, which more accurately reflects the increase in value due to communal efforts.

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II. Shortcomings of Property Tax

When Property taxation played a significant role throughout the course of human history [4]. In ancient civilizations such as Egypt and China, the governments used the revenue they collected from property taxes to financially support construction activities and military expenditure. Nowadays, the property tax continues to play an important role in many nations. In the United States, for example, property taxation was responsible for nearly 72% of the tax revenue of local governments in 2006 [4]. However, the general public of the United States perceives traditional property taxation to be regressive because it primarily burdens low-income taxpayers. In contrast, land value tax is arguably more progressive and burdens the rich people more than it burdens the poor people.

Moreover, traditional property taxation leads to inequity and unfairness because it uses acquisition value assessments based on sales price [4]. This characteristic causes the possibility for owners of properties with the same market value to pay significantly different property tax bills. This violates the standard of fairness that ensures people in similar circumstances to pay similar amounts of tax. Therefore, it is important for governments to consider land value taxation as an alternative to traditional property taxation.

A. Theoretical Case

Efficiency is a defining advantage of land value taxation over traditional property taxation. Unlike other forms of taxation, land value taxation does not distort market choices by changing the price of the taxed activity and causing deadweight loss.

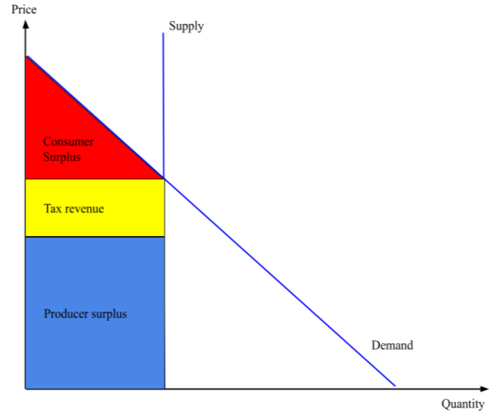

Fig. 1. Demand and supply diagram of land value taxation

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Fig. 1 illustrates a market where the commodity of concern is land. The supply of land is fixed because there is a finite amount of land available, which leads to a vertical supply curve. As a land value tax is imposed on the market, neither the supply of land nor the demand of land changes, so the price and quantity associated with the market do not change as well. As a result, the land value tax does not lead to an under allocation of resources, and it introduces no deadweight loss to the market. In contrast, a traditional property tax levied upon improved land value, which consists of land and structures, discourages investments in new structures and maintenance of existing structures as the amount of property tax to be paid increases because the amount of improvements that can be done is not fixed [4]. By switching to a land value tax from a property tax, the market will be liberated from unnecessary distortions on the investments on structures, while the land value tax provides the government a comparable amount of revenue.

Moreover, a land value tax is not only more efficient relative to a traditional property tax but also places the tax burden primarily on landowners. Most taxes burden the producers, consumers, and other parties due to changes in the price and quantity of the commodity or activity of concern. In contrast, in the case of land value tax, the supply of unimproved land is fixed, so the price and quantity of the land remains unchanged after the imposition of a land value tax. Because of the landowners' inability to raise the rent in response to the imposition of a land value tax, the tax incidence falls entirely on the landowners. This conclusion is supported by Figure 1. As a land value tax is imposed, the yellow area that represents the tax revenue replaces the red area that represents the producer surplus, or the surplus of the landowners. Therefore, land value taxation is entirely at the expense of the surplus of the landowners without affecting the surplus of the consumers.

II. Urban Development

Not only does land value taxation free the market from distortions, but it is also considered to be productive and beneficial because it promotes economic activities by encouraging development in vacant areas. Given the significant fluctuations in price that characterize the real estate market, it is far from uncommon for speculatory landowners to deliberately hold land without using it to perform economic activities, betting that the land would become more valuable for sale in the future. The type of behavior, admittedly legal, is generally harmful to the economy and society because the land resources are not being utilized to the maximum and allocated to the people in need. The landowners who hold land for speculative purposes will be disadvantaged should a land value tax be imposed because they will make losses by paying the tax without gaining revenue from the land. Therefore, these landowners are incentivized to rent their vacant lands to potential developers or invest in improving the land for economic use [5]. As such, land value taxation benefits the surrounding community by promoting urban development and facilitating economic growth, as evidenced by empirical evidence in Denmark [6]. Furthermore, more efficient use of urban lands resulting from the imposition of a land value tax promotes employment in urban centers [7]. In fact, as shown by Murray and Herman by quantitatively analyzing the dataset of Victoria, Australia, a land value tax is better than a property tax levied upon improved land value in encouraging the development of vacant urban areas [8].

The development of Pittsburgh, Pennsylvania in the 1980s exemplified the ability of land value taxation in fostering urban development as a result of discouraging speculation. Pittsburgh adopted a two-rate taxation system in 1979 that raised the rate on land to more than five times the rate on improvements [9]. The two-rate taxation system is considered to be a variant of land value taxation. In the 1980s, the increase in building activities in Pittsburgh tremendously exceeded the increase in surrounding suburbs and neighboring cities, which was surprising considering the impacts of deindustrialization and economic decline in the Rust Belt. Therefore, the study demonstrated a correlation between the imposition of the two-rate taxation system and the increase in building activities, but it was uncertain from the study whether the increase in building activities resulted from the relative decrease in the improvement tax rate or the increase in the land value tax rate. As shown by another study on Pittsburgh's two-rate taxation system, which indicated that "a 1% decrease in the improvement tax rate…should result in a 2.36% increase in the dollar value of new housing," the increase in construction activities resulted from the decrease in the improvement tax rate [10]. Meanwhile, over the same time period, Scranton, Pennsylvania experienced an increase in building activities by solely increasing the land value tax rate [11]. Although it is uncertain which component of the two-rate taxation system is responsible for increasing construction activities, the system as a whole is generally beneficial to urban development.

III. Single Tax

Use Since a land value tax creates no allocative inefficiency and arguably facilitates economic growth by discouraging speculation, Henry George proposed abolishing all taxations and saving that upon land values. Indeed, other forms of taxation inevitably result in an under-allocation of resources because these forms of taxation distort market choices by changing the price of the taxed commodity or activity. Income taxation disincentivizes laborers to work. Indirect taxation discourages production. Value-added taxation impedes trading. In theory, the economy will be more efficient should a land value tax replace the other taxes and remove their deadweight losses.

However, although several countries nowadays utilize land value taxation, all of them use it concurrently with other forms of taxation to serve purposes indispensable to society that cannot be fulfilled by land value taxation independently [12]. For example, carbon tax and indirect tax levied upon commodities with negative production externalities are important policies to mitigate unsustainable practices inevitable in an unregulated free market. Although these taxes cause deadweight losses as far as the welfare of consumers and producers is concerned, they arguably benefit society by promoting sustainability, which can be undermined should land value taxation replace other forms of taxation. Moreover, as opposed to the optimism of Henry

George, a land value tax is inadequate relative to a corporate tax in contributing to public revenue and capturing the assets of corporations in forms other than land. If a single land value tax were imposed, it would have disproportionately burdened corporations whose assets are mainly composed of land ownership. Furthermore, land value taxation arguably cannot effectively fulfill the role of income taxation in generating revenues. For this purpose, to be achieved, it requires an unreasonably high land value tax rate that is “tantamount to expropriation of the land” [13]. This raises philosophical questions regarding property rights, as ownership of property is derived from the labor of the owners and should not be violated by an excessively high tax rate [14]. Therefore, it is unrealistic in many ways to use land value tax as a single tax that replaces all other forms of taxation. Instead, it is more practical to consider land value taxation as an alternative to traditional property taxation or as a means to reform the traditional property taxation system.

IV. Redistribution

In the modern context, income and wealth inequality have become tremendously important socio-economic issues in many countries around the world. A progressive tax is able to transfer the income and wealth of the rich people to the government, and the government can use the tax revenue to fund public resources such as education and medical care to empower the poor people to break the barriers of classes. Therefore, a progressive tax contributes to social equality by enabling the government to redistribute income and wealth. Land value taxation appeared to be an effective measure of redistribution in the nineteenth century United States. In the modern days, however, the redistribution properties of land value taxation are not as clear. Nevertheless, there are adaptive measures to enhance the redistribution properties of land value taxation.

In the theoretical case, a land value tax only burdens the landowners due to the nature of the supply of land and the unchanged price and quantity in response to the imposition of a land value tax. To nineteenth century proponents of land value taxation, it was beneficial for the tax to only burden the landowners. In the nineteenth century United States, land ownership in cities was highly concentrated due to industrialization and rapid economic development. As a result, a land value tax that only burdens the landowners would burden the rich disproportionately, which qualifies land value tax as progressive. In the modern days, however, it is questionable whether the same arguments would hold. Although land ownership largely constitutes the wealth of middle-class households, it less significantly composes the wealth of the richest ones. In the United States, the wealthiest 0.1% holds approximately 80% of their wealth in the form of equities and bonds [15]. This is consistent with the results of the United States Bureau of Economic Analysis that in 2009, all the lands in the United States were worth approximately $23 trillion, whereas the total worth of capital stock in the United States was approximately $45 trillion [16]. Therefore, a land value tax is inadequate in capturing the wealth of the richest ones and redistributing it, which is primarily held in other forms. In fact, a land value tax is presumably less progressive than a modern income tax because the former disproportionately affects the middle class, whose wealth is significantly embodied in land ownership. Therefore, it is unrealistic nowadays for a land value tax to replace all other forms of taxation because the redistribution properties of land value taxation are not as desirable as Henry George envisioned.

Nevertheless, there are several measures to promote redistribution of income and wealth using land value taxation. For example, the government can increase the tax rate as the value of the land increases, as opposed to imposing an indiscriminate, regressive indirect tax that primarily burdens the poor. In the Land Tax Act enacted in Southern Australia in 1936, the land value is partitioned into a maximum of five segments according to the thresholds of AU$332,000, AU$609,000, AU$886,000, and AU$1,108,000, and the tax rate of each segment increases as its value increases [17]. Since the income of landowners generally displays a positive correlation with the value of their land, a land value tax implemented as such is progressive and burdens high income areas more than low-income areas. Furthermore, this mechanism discourages the ownership of large estates and promotes the redistribution of land among a wider range of owners, but such an objective is vulnerable to the distribution of land among family members, where each division is taxed at a lower rate [18]. Alternatively, the government can design the tax rate to increase as the number of properties owned increases. Under the Namibian Land Valuation and Taxation Regulations of 2001, an owner of multiple farms annually pays 0.75% of the land value of the farm with the highest value, and the tax rate increments by 0.25% for every subsequent farm [19]. This policy is critical to countries reliant on agriculture because it discourages the ownership of multiple farms and redistributes lands among previously underprivileged tenant farmers, but it may not be applicable in other countries due to the substantial administrative difficulty to track the ownership of multiple properties.

V. Implementation Challenges

The Although it is overly optimistic to consider land value taxation as a single tax that replaces all other inefficient forms of taxation, land value taxation is still a viable alternative to traditional property taxation because it has greater efficiency and promotes urban development to a larger extent. However, traditional property taxation still appears to be a more dominant offering than land value taxation as far as the United States is concerned. This may seem perplexing at first, but one of the reasons why governments and voters are reluctant to adopt land value taxation lies in the challenges of implementation.

Friedrich Hayek indicated that the theory of land value taxation is based on an underlying assumption that it is possible to distinguish between the increase in land value due to communal efforts and that due to the efforts of the landowners [20]. This assumption enables the government to calculate an appropriate tax rate that confiscates the unearned earning of the landowners without harming their deserved interests. However, as Friedrich Hayek suggested, the assumption is unsound “because no such distinction can be drawn with any degree of certainty”[20]. Therefore, it was fundamentally unsound to argue that land value taxation is able to appropriately confiscate the undeserved gains of the landowners.

Moreover, the implementation of land value taxation leads to complicated legal issues, as exemplified by the case of the United States. Since property taxation in the United States is primarily administrated on the state level, state constitutions and legislatures can impede the implementation of land value taxation. According to the West Virginia Constitution, Art. 10, sec. 1, “taxation shall be equal and uniform throughout the state, and all property, both real and personal, shall be taxed in proportion to its value to be ascertained as directed by law” [4]. This provision reflects similar requirements put forth by state legislatures in 15 other states. Simply put, this provision requires that properties of equal value must be subject to the same tax rate and therefore the same amount of taxation. Under a two-rate tax system, however, it is inevitable for two property parcels to be taxed at a different rate because the values of the parcels are composed of different proportions of land value and value of improvements. Since a two-rate tax system violates the provision, this provision functions as an obstacle to the adoption of a two-rate tax system in the United States. Nevertheless, these legal barriers are not entirely insurmountable, considering that Pennsylvania, a state with a similar provision, enacted a statute in 1913 to allow cities to adopt a two-rate taxation system, which remains valid today. It is entirely possible for other states to amend their legislature in similar ways to enable the implementation of a two-rate taxation system.

Furthermore, it is essential for a land value tax to be implemented with flexibility to accommodate individual situations. For example, an indiscriminate implementation inequitably penalizes landowners whose ability to pay the tax is not comparable to the value of their land assets. The issue is particularly significant in countries where land values have increased at a greater rate than income levels, such as the United States [21]. The government of Denmark allows deferrals of land value tax bills until the disposal of land. Alternatively, it is possible to adjust the tax rate according to an individual landowner’s ability to pay. Moreover, it is appropriate for governments to exempt lands used for public purposes, such as churches and infrastructures. The notation of exemptions under special circumstances is permitted by the legislature of many states in the United States, so flexible implementation is legally acceptable. However, it is difficult to determine which lands qualify for these exceptions in practice. It is also possible for people to avoid paying tax by taking advantage of the ambiguous conditions that determine the qualification of exemption.

VI. Political Resistance

Another reason why land value taxation is not widely adopted despite being compelling in theory is political resistance. In modern democratic countries, it is necessary for a policy to meet political acceptance from the public before being implemented, and land value taxation is no exception. Unfortunately, the public generally has negative sentiments toward all forms of property taxation, including land value taxation, presumably because the public perceives traditional property taxation as regressive. Another possible reason for this aversion is that the owners of adjacent identical properties with the same market value may pay significantly different annual property tax bills. Therefore, land value taxation must be viewed by the public as a sufficiently different alternative to traditional property taxation, instead of as a “property tax wrapped in a different package”. The extent to which this is challenging depends on the extent of economic knowledge and education of the public of concern, which vary from place to place.

In addition to the public’s general aversion to property taxation, the public is also discontent with the inaccuracy of the separate evaluation of land and improvements. In fact, it is extremely difficult to determine unimproved land value rigorously. In Queensland, Australia, valuations of unimproved land are based on the market values of comparable unimproved land [22]. This approach is problematic because it is difficult to determine which lands qualify as comparable, and unimproved land is rarely available in developed urban areas. An alternative method is to subtract an estimated value of the improvements from the improved land value. Nevertheless, it is almost impossible to estimate the value of improvements with absolute accuracy, especially when the distinction between land and improvements is ambiguous in the presence of leveling and planting. The inaccurate nature of such attempts often results in lack of appreciation from the public. Because of the complicated and inaccurate characteristics of land valuations, revaluations are generally infrequent despite being ideal considering the recurrent nature of land value taxation. For example, revaluations have not occurred for more than 25 years in the United Kingdom [23]. In addition, revaluations often result in political opposition because the increase in the tax base resulting from revaluations harms the interests of certain communities, such as car dealers, who are generally reliant on land, in the case of Allentown, Pennsylvania [24].

Although Pittsburgh, Pennsylvania was rather successful in implementing a two-rate taxation system, the system abruptly came to an end in 2001 due to several reasons. First of all, Pittsburgh performed a decades-overdue revaluation of all properties’ land value and value of improvements. As a result, the tax burden increased drastically and was redistributed. Unfortunately, the public officials failed to decrease the tax rate in response to the changes in price. The public directed their discontent with untimely revaluation and inflexible changes in tax rate to the two-rate taxation system of Pittsburgh. The public was also dissatisfied with the lack of transparency in the process of revaluation, as the separate market prices of land and improvement were not publicly available. Since the course of this incidence coincided with a mayoral election, the two-rate taxation system of Pittsburgh came to an end. The unfortunate experience of Pittsburgh demonstrates the importance for revaluations to be frequent and transparent, which is difficult to achieve because of the inherent difficulties associated with land valuation.

VII. Conclusion

In conclusion, the theoretical case outlines that land value taxation liberates the market from unnecessary distortions. As supported by empirical evidence, land value taxation can even be productive because it encourages development in vacant urban areas. Meanwhile, it is overly optimistic to consider land value taxation as a replacement of all other forms of taxation because it cannot fulfill certain roles. Although land value taxation can be implemented in a progressive way, it is uncertain if it redistributes income and wealth better more effectively than other forms of taxation. Moreover, the implementation of land value taxation encounters numerous challenges, particularly political resistance. Therefore, instead of viewing land value taxation as a panacea for resolving urgent social issues such as inequality, it is more practical for governments to consider land value taxation as a more efficient alternative to traditional property taxation.

Conflict of Interest

The author declares no conflict of interest.

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