Abstract

The consideration of property taxation has long been a part of the development of economic analysis beginning with the French Physiocrats, through Ricardo, and then George. As a result, the economic literature concerning property taxation is vast. This chapter surveys an important slice of that literature which considers the incidence of property taxes. Over the past thirty years, three theories have been proposed to describe the economic effect of property taxes. The ‘Traditional View’ suggests that, because of the fixed supply of land, taxes on land will be borne by the owners or renters of land. The ‘New View,’ however, concludes that a tax on land is largely equivalent to a general tax on all capital. Finally, the ‘Benefit View’ suggests that property taxes are appropriately viewed, not as a tax, but as an efficient user charge for local public services. Empirical study to date has not determined whether the new view or the benefit view is the more appropriate model of property taxation.

JEL classification: H2, H22, K3, K34

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1. Introduction

Property taxes are typically defined to encompass those taxes levied on both real and personal property that are dependent on the value of the property itself. Generally, a property tax is administered through the use of a uniform tax rate imposed on the assessed value of the property subject to tax. Within a given jurisdiction, the tax rates frequently vary depending on the type or class of property being taxed. More importantly perhaps for comparative purposes, property tax systems vary significantly across jurisdictions with respect to the types of property that comprise the tax base as well as the exclusions for specific types of property, the assessment techniques used to determine the value of the property subject to the tax, and the tax rates applicable to the various classes of property. Within the United States, the property tax is the principal source of revenue for county and municipal governments.

The economic literature that considers the law of property taxation is extremely broad in scope. Economists have developed various theories...
concerning the incidence of property taxes and have conducted empirical studies to test those theories. The study of property taxation is closely tied to the study of the provision of public goods as any general equilibrium analysis of property taxation must consider the public benefits provided through a system of property taxation. The following discussion will consider the three principal models of the incidence of property taxes, and in particular the taxation of land, that form the basis for the examination of property taxes from an economic perspective. These economic models of property taxation have also served as the basis for public policy proposals under which differential property tax rates or assessment procedures could be used to protect agricultural lands or encourage development in urban areas. Economists have also examined the administration of property tax systems, including the proper assessment procedures for the valuation of property for tax purposes.

A. Conceptual History of the Property Tax

2. Survey

As described by Winfrey (1973), as well as Buchanan and Flowers (1975), property taxes were one of the earliest forms of taxation to be considered from an economic perspective. Beginning with the French Physiocrats of the mid-eighteenth century, including Francois Quesnay their leader, early economists concluded that property, and more specifically land, was the only logical base for taxation. The Physiocrats viewed agricultural land as the only ‘productive’ sector of the economy, producing a surplus over the real costs of production. All other sectors of the economy simply provided services or transformed goods from one form to another.

The English classical economist David Ricardo also maintained that land was the appropriate factor of production to be taxed. According to Ricardo, increases in population increased the demand for agricultural goods, thus causing more marginal lands to be brought into use. Because greater labor was necessary to make these more marginal lands productive, Ricardo reasoned that these greater costs would be reflected in higher prices for agricultural goods. These higher prices, in turn, increased the return to the owners of the more productive land who did not confront the greater costs of production applicable to the more marginal lands. According to Ricardo, this increased return or ‘rent’ represented ‘the original and indestructible powers of the soil’. Ricardo maintained that this ‘surplus’ should be taxed as it did not represent a real cost of production.

The views of the Physiocrats and Ricardo served as the basis for the single tax movement which gained strong support in the United States at the end of the nineteenth century under Henry George. George (1879) maintained that the
return on land represented an economic rent that could be taxed away without distorting the allocation of resources that would otherwise result in the absence of the tax. In today’s terminology, an economic rent is defined as the return to any factor of production in excess of that which the factor could receive in its next best employment. Thus, the taxing of only the economic rent attributable to any particular factor will not result in the transfer of that factor from its current use to an alternative use. In addition, the Georgists maintained that any increase in the value of land resulting from growth in the economy was viewed as a surplus created by society that could rightfully be taxed. As stated by George:

Taxes levied upon the value of land cannot check production in the slightest degree, until they exceed rent, or the value of land taken annually, for unlike taxes upon commodities, or exchange, or capital, or any of the tools or processes of production, they do not bear upon production. The value of land does not express the reward of production, as does the value of crops, of cattle, of buildings, or of any of the things which are styled personal property or improvements. It expresses the exchange value of a monopoly. It is not in any case the creation of the individual who owns the land; it is created by the growth of the community. Hence the community can take it all without in any way lessening the incentive to improvement or in the slightest degree lessening the production of wealth. Taxes may be imposed upon the value of land until all rent is taken by the State, without reducing the wages of labor or the reward of capital one iota; without increasing the price of a single commodity, or making production in any way more difficult. (George, 1879, p. 413)

George’s claim that a tax on the value of land is nondistortionary has been supported by modern commentators such as Wildasin (1982), Vickrey (1970), and Tideman (1982) provided the tax is imposed on pure land rentals, defined as the value of the land independent of anything that might be done with the land, and not, as Bentick (1982) and Mills (1981) point out, on the current market value of land which reflects present and future uses of the land.

Unfortunately, the Physiocrats, Ricardo, and George all failed to recognize that rents may be attributable to all factors of production. Under a marginal analysis, each factor of production - labor and capital, as well as land - will receive the value of its marginal product in a competitive economy. Land alone cannot be viewed as receiving the residual value of all production. As noted by Fischel (1985, pp. 16-17), ‘the only economic difference between land and the other factors of production is that [land] is fixed in supply by virtue of its immobility’. As discussed below, this characteristic - the fixed supply of land as a result of its immobility - remains important in understanding the economic effects of property taxation.
In the United States, the use of property taxation is largely limited to state and local jurisdictions. In addition, revenues collected through the imposition of property taxes on personal property has declined in relation to the imposition of property taxes on real property (Netzer, 1966). Although George’s single tax movement was never fully implemented, principally because of administrative difficulties (Holland, 1970), it remains visible in those property tax regimes under which land is more heavily taxed than other forms of property (Oates and Schwab, 1997).

B. The Modern Theoretical Framework

3. Overview

Economists have developed three principal theories under which the incidence of property taxation has been considered. Importantly, each theory distinguishes between taxes on land and taxes on capital. The observation that a property tax may have a differential effect on land as opposed to other forms of capital results from the difference in elasticity of the supply of each item. Based on the assumption that the supply of land subject to taxation in a given jurisdiction is fixed, the ‘Traditional View’ suggests that taxes on land will be borne by the users of land, that is, the owners or renters of the land (Netzer, 1966). The ‘New View,’ however, concludes that a local tax on land can be broken into two components, a ‘profits tax’ and an ‘excise tax’ (Mieszkowski, 1972b; Aaron 1975). Because the profits tax component is equivalent to a general tax on all capital, that portion of any property tax will fall on the owners of all capital. Finally, the ‘Benefit View’ suggests that property taxes are appropriately viewed as a user charge for local public services (Hamilton, 1975b, 1976b; Fischel, 1985, 1992). Because consumers of public services are mobile, the benefits view suggests that a property tax is in many situations is an efficient financing mechanism for public services.

4. The Traditional View

The traditional view of property taxes was originally articulated by Simon (1943) and Netzer (1966). The traditional view adopts a partial-equilibrium approach under which property taxes are considered as separate payments for capital and land. The supply of capital is considered to be perfectly elastic, and the supply of land is considered to be perfectly inelastic. As shown in Figure 1, the return to owners of capital is at a nationally determined rental rate for capital ($R_n$). If a jurisdiction enacts an ad valorem property tax ($t$) on capital,
the price of capital will rise to $R_n (1 + t)$ in order to maintain an after-tax return on capital of $R_n$ and the amount of capital in the jurisdiction will fall from $C_0$ to $C_1$. This effect can be modeled as a decline in the demand for capital from $D$ to $D'$. This effect will also occur if the jurisdiction enacts an increase in the rate of an existing property tax.

**Figure 1**

If the ad valorem property tax is also imposed on the jurisdiction’s perfectly inelastic supply of land, the result is the perfect capitalization of the tax in the return of the land. As shown in Figure 2, the return on the land will fall from $R_n$ to $R_n (1 - t)$. Nevertheless, because the supply of land in the jurisdiction is fixed, the tax has no effect on the quantity of land but results only in a reduction in the price of land.
The traditional view has been employed to conclude that the imposition of a property tax on residential land is regressive in nature. This conclusion is based on the assumption that the proportion of income spent on housing falls as income rises. Based on the traditional view, Netzer (1966), however, concluded that, in the aggregate, the property tax was more nearly proportional than regressive. Nevertheless, with respect to housing, Netzer recognized that the property tax was regressive based on empirical studies available at that time. Netzer (1973) later cautioned that studies concluding that the property tax was regressive in nature were biased because they typically adopted current income rather than normal or permanent income. He hypothesized that the regressive aspects of the property tax would be diminished if the studies, like consumers themselves when making housing decisions, considered income prospects over periods longer than a single year.

5. The New View

The new view of property taxation was originally developed by Thomson (1965), Mieszkowski (1972b) and Aaron (1975) and reformulated by Mieszkowski and Zodrow (1986). The new view adopts a general equilibrium analysis for all jurisdictions in a country, and assumes that both the capital in the country and the land in any one jurisdiction are fixed.
As described by Wassmer (1993), the analysis underlying the new view is often simplified by assuming that only three types of jurisdictions exist which differ in the demand for local services - low, medium, and high. In the short run, property, which is made up of capital as well as land, is considered fixed in each jurisdiction at \( P_0 \). Prior to the introduction of the tax, the return on capital is at a nationally determined rate, \( R_n \). Following the introduction of the tax, the return on capital declines by the amount of the tax in the same manner as that described under the traditional view for land alone. The decline will be greatest in the jurisdiction for which the demand for services is highest as greater revenues are necessary to provide the services demanded. As shown in Figure 3, the return declines to \( R_{h1} \) in the high demand jurisdiction, \( R_{m1} \) in the medium demand jurisdiction, and \( R_{l1} \) in the low demand jurisdiction.

The decline in the return on property in the medium-demand type jurisdiction from \( R_n \) to \( R_{m1} \) has been referred to as the ‘profits tax’ effect, a decline in the market value of property across all jurisdictions by the average rate of taxation. (Zodrow and Mieszkowski, 1989). The profits tax effect is exacerbated in the high-demand type jurisdiction by a negative ‘excise tax’ effect equal to the difference between \( R_{h1} \) and \( R_{m1} \) resulting from a higher tax rate in the high-demand type jurisdiction as compared to the medium-demand type. The profits tax effect is partially offset, however, in the low-demand type jurisdiction by a positive excise tax effect equal to the difference between \( R_{l1} \) and \( R_{m1} \) resulting from a lower tax rate in the low-demand type jurisdiction as compared to the medium-demand type jurisdiction.

Because the relative return on property among the three types of jurisdictions differ and because capital is assumed to be perfectly mobile in the long run, capital will exit the high-demand type jurisdiction where the return on property is the lowest, decreasing the supply of property in that jurisdiction from \( P_0 \) to \( P_1 \). This capital will enter the low-demand type jurisdiction where the return on property is the highest, increasing the supply of property in that jurisdiction from \( P_0 \) to \( P_1 \). The decrease in the supply of property in the high-demand type jurisdiction will increase the return on property from \( R_{h1} \) to \( R_{h2} \). The increase in the supply of property in the low-demand type jurisdiction will decrease the return on property from \( R_{l1} \) to \( R_{l2} \). Equilibrium will be achieved when the after-tax return on property is equalized across all three types of jurisdictions at \( R_{h2} \), \( R_{m1} \), and \( R_{l2} \). Importantly, however, the excise tax effects of the property tax, as described above, will result in distortionary effects in the high- and low-demand type jurisdictions.
As shown in Figure 3, the rental rates paid for property in the three types of jurisdictions differ. The rental rate in the high-demand type jurisdiction, $R_h$, exceeds the rental rate in the medium-demand type jurisdiction, $R_m$, which, in turn, exceeds the rental rate in the low-demand type jurisdiction, $R_l$. To the extent that the higher rental rates in high-demand type jurisdictions are not offset by increased utility from higher service levels, individuals may move from high-demand type jurisdictions to medium- or low-demand type jurisdictions. Conversely, to the extent that higher rental rates are offset by increased utility from higher service levels, individuals may move from low-demand type jurisdictions to medium- or high-demand type jurisdictions. Such a movement would cause rental rates across all three types of jurisdictions to converge but, unless individuals are assumed to be perfectly mobile, rent differentials will persist.

Unlike the traditional view, the incidence of the property tax under the new view is generally seen as progressive. This is because the property tax results principally in a decline in the return on capital by the ‘average’ rate of taxation in the nation. Because capital is disproportionately held by those with higher incomes, Mieszkowski and Zodrow (1989) conclude that the profits tax portion of any property tax under the new view is ‘highly progressive’.

6. The Benefit View

The benefit view, which extends the analysis of the new view, includes within its analysis the benefits conferred on property owners through property taxes. As developed by Hamilton (1975b, 1976b), the benefit view adopts the assumptions underlying the new view but also assumes the perfect mobility of
individual consumers and the ability of jurisdictions to engage in fiscal zoning. If the provision of public services is viewed as a public good, the new view suggests that incentives exist to utilize land in a high-demand type jurisdiction in such a manner that the benefit of public services exceeds the burden of the property tax. The benefit view assumes that jurisdictions will engage in fiscal zoning under which the value of the housing units permitted within the jurisdiction will be restricted to some minimum value, typically through the use of the jurisdiction’s zoning authority or through some other power to control land uses and intensities. At this minimum value, the revenues generated through the property tax will exactly offset the value of the public services obtained.

The benefit view, thus, follows a Tiebout (1956) model under which the property tax becomes a head tax or nondistortionary user charge for public services. Assuming a sufficiently large number of jurisdictions within a larger metropolitan region offering a diversity of public services and assuming further the mobility of consumers for those services, the property tax represents an efficient means of financing the provision of public services. Importantly, the benefit view does not require that any particular jurisdiction be homogenous with respect to residential values. Hamilton (1976b) demonstrated that, in heterogeneous communities, differentials between benefits received through public services and taxes paid will be capitalized into the price of the property. Fischel (1975) and White (1975a) have extended the benefit view to the taxation of commercial and industrial property.

Viewing the property tax as a head tax or a user charge for the provision of public services under the benefit view, the concerns involving the progressivity or regressivity of the property tax under the traditional and new views do not arise based on the relationship between the property tax and the provision of public goods and services and the assumption of consumer mobility.

7. Evidence Concerning the Validity of the Alternative Theories

Commentary and empirical studies concerning the validity of the traditional, new, and benefit views have reached no definitive results. For example, Netzer (1973), a proponent of the traditional view, suggests that the lack of uniformity of the property tax, at least on a national level in the United States, means that it is not even ‘sensible’ to speak of a partial tax on capital (such as a property tax in only one jurisdiction) in terms of a tax that lowers the average rate of return on all capital as proposed under the new view. This observation is disputed by Mieszkowski and Zodrow (1989) who suggest that the work of Lin (1986) concludes otherwise.

The proponents of the new view have suggested, in turn, that little evidence exists to support the view that jurisdictions engage in perfect fiscal zoning or that any benefit or burden differentials are perfectly capitalized into the value...
of property as required by the benefit view. Nevertheless, Fischel (1985, 1992) suggests that the multi-dimensional land use restrictions available to communities under typical zoning enabling acts can be effective mechanisms to engage in fiscal zoning. In addition, Fischel (1992) maintains that the widespread use of exactions or impact fees may directly substitute for expenditures otherwise financed by property taxes. The existence and relative importance of exactions and impact fees are typically overlooked in studies of the property tax itself. Fischel (1989) also maintains that the benefit view is supported by voter hostility towards property taxation when the level of benefits typically paid for through the imposition of property taxes, such as expenditures for education, are no longer related to the property taxes paid. Fischel suggests that the overwhelming voter support for property tax reduction in California in 1978 under Proposition 13 was the result of the California Supreme Court’s 1976 decision in Serrano v. Priest (135 Cal. Rptr. 345) requiring stringent equality in spending per pupil across California school districts.

Empirical studies of various types have not succeeded in fully determining whether the new view or the benefit view provides the more valid description of the property tax. As summarized by Mieszkowski and Zodrow (1989), the majority of empirical studies have focused on the extent to which property taxes and local government expenditures are capitalized into property values. These studies by Oates (1969), Edel and Sclar (1974), and Hamilton (1976b, 1983) as well as others indicate that property taxes and government expenditures are capitalized into property values. This observation does not confirm the benefit view, however, because the new view also implies some capitalization. The existence of capitalization of benefits, such as school quality, further supports the benefits view (Gurwitz, 1980; Hoxby, 1997). Responding to the suggestion of Mieszkowski and Zodrow (1989, p. 1131), Wassmer (1993), Carroll and Yinger (1994) and Man (1995) conducted studies considering changes in the aggregate value of the property tax base and intermetropolitan rent differentials. The results of these studies support the new view’s conception of the property tax as, at least in part, a distortionary tax on capital. Wildasin (1986a) has suggested that neither the new view nor the benefit view may be entirely correct, however, and that, because of imperfect fiscal zoning and imperfect capitalization, the property tax may best be considered as a combination of a capital tax and user charge.

Despite the fact that the benefit view has not been entirely validated based on empirical study, it has focused inquiry on the question whether property taxation can be properly analyzed in isolation from the public goods and services that it finances. This aspect of the benefits view, in turn, has spurred more recent research into the political behavior of local governments, particularly in the area of tax competition as governments compete for capital through adjustments in property tax rates (Coates, 1993; Edwards and Keen, 1996; Nechyba, 1997).
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