

# Choosing between the Capital Tax View and Benefit View of the Property Tax: Evidence from Taipei City

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## Abstract

The incidence of the property tax is still one of the most controversial issues in local public finance. The three mainstream views of the incidence of the property tax include—the *tradition view* which treats the tax as an excise tax, the *benefit view* which argues that the property tax is simply a user charge for local public services, and the *capital tax (new) view* which treats the property tax as a tax on capital with a distortionary effect on the use of capital. Although it is easy to show that the traditional view is simply a special case of the capital tax view, it is, however, difficult to choose between the capital tax view and the benefit view in that both views have their own theoretical underpinnings and current empirical studies in the literature provide little evidence to support either view. In this paper, we attempt to provide such empirical evidence, using data from the rental housing and real estate markets of Taipei City, to distinguish between these two views. We found that (1) capital intensity is decreasing in effective tax rate of both house and land value taxes; (2) according to the hedonic pricing model, the house tax will partial-shift forward to tenants and tax on land value has no significant impact on housing rent; and (3) by Palmon and Smith's (1998b) modified capitalization model, both taxes are overcapitalized into house values. All of these empirical evidences seem to favor the capital tax view.

Keywords: Property taxation; Tax incidence; Tax capitalization; Hedonic pricing model; Tax Shifting

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## 1. Introduction

The incidence of the property tax is still one of the most controversial issues in local public finance in the last three decades.<sup>1</sup> Three mainstream views of the incidence of the property tax include: (1) *the tradition view*, from a partial equilibrium perspective, treats the tax as an excise tax; with perfectly mobile capital, the tax is fully shifted forward to renters in the form of higher rents; (2) *the benefit view* argues that the property tax is simply a user charge for local public services, thus the incidence of property tax is of much less concern under this view; and (3) *the capital tax view* (or *new view*), from a general equilibrium perspective, treats the property tax as a tax on capital which has a distortionary effect on the use of capital within a local jurisdiction. Although it has been recognized that the traditional view is simply a special case of the new view, it is, however, difficult to choose between the capital tax view and the benefit view in that both views have their own theoretical underpinnings and current empirical studies in the literature provide little evidence to support either view.<sup>2</sup>

In a recent survey article, Zodrow (2001b) reviews the ongoing debate regarding the incidence of the property tax and proposes two empirical approaches about *intra-jurisdictional capitalization* to differentiate between these two views. Zodrow argues that since these two views have quite different predictions on the effects of the tax, there are, at least, two effective empirical tests that can be used to distinguish between them. The first one is to identify the effects of property tax differentials on *capital intensity and property values*. The capital tax view implies that relatively high levels of property taxation should discourage mobile capital

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<sup>1</sup> See Zodrow (2006), p. 14.

<sup>2</sup> For more detailed discussion and debates over the three views, see Zodrow (2001a, 2001b), Fischel (2001), and Nechyba (2001). See also Hamilton (1983) for an early review.

accumulated within a local jurisdiction, resulting in lower capital intensity. On the other hand, the benefit view which views the property tax as a user charge for local public services received implies that the capital intensity should be independent of the level of property taxation. Moreover, under the capital tax view, capital outflow from a relatively high tax jurisdiction results in lower land and property values. In contrast, under the benefit view, a relative high property tax should not affect aggregate land and property values as long as the capitalization effects of property taxes and local public services received cancel out.

The second test is to identify the effects of property tax differential on *housing rents*. Under the benefit view, an increase in property taxes will be *fully* reflected in a higher housing rents, as long as the benefits received by renters equal the cost of the services being financed. In comparison, under the capital tax view, an increase in property taxes will be *partly* forward shifted to renters, resulting in higher rents. The extent of tax shifting depends on the relative elasticities of demand and supply of rental housing or the relative mobility of users and owners of capital. Notice also that the part of property tax on land will be *fully* backward shifted to landowners, resulting in a lower return to landowners.

The purpose of this paper is to obtain some empirical evidence that may provide us with conclusive supports for either views of property taxation. Two empirical studies by Wassmer (1993) and Carroll and Yinger (1994) had shared the same goal as this paper and provided supportive evidences that favor the capital tax view. In Wassmer's (1993) work, he examined the effect of the differential between local (effective) property tax rate and the national average rate for 62 large U.S. cities. As predicted by the capital tax view, the empirical results show that the greater the positive differential between the two rates, the smaller the amount of capital in the city,

and the smaller the per-unit value of property of its property tax base, and that an increase in national average tax rate will leads to a lower rate of return to all property. Carroll and Yinger (1994), on the other hand, test the ability of tax shifting of the landlord for the rental housing market in the Boston metropolitan area. They found that, on average, landlords bear \$.91 on a \$1.00 increase in property taxes, with a range from \$.70. to \$.98, depending the relative mobility between tenants and landlords.

Unlike previous study where taxes on land are included in the amount of property tax, this study takes advantages from the data set in Taiwan property tax system. Taiwan adopts a *two-rate, split-rate, or graded property tax system*, with a house tax and a land value tax. It is very helpful to design some empirical models to perform the aforementioned tests that can provide us powerful evidence to indicate the validity of new view and benefit view. That is, these tests could provide us more specific information about the impacts of differential effective housing and land value tax rates on capital intensity, property value, and housing rents to distinguish the validity of capital tax view and benefit view of property taxation.

The remainder of this paper is organized as follows. The next section describes the data and processes the data for the empirical model. In Section 3, I construct three empirical models by which the validity of views of property taxation can be tested. The results are also presented. Finally, Section 4 provides a brief discussion of the limitation of this study and concludes the paper.

## **2. Data Description and Data Processing**

To coincide with the requirement of intra-jurisdictional capitalization as Zodrow (2001b) argued, the data were collected between May 2002 and November

2002 from the 12 districts of Taipei City, where property values and characteristics of the property were recorded officially by reported trades in the real estate market in Taipei City. The total sample is comprised of 1114 soled homes. Only single-family detached residential dwellings are included in the data set, with some of them were partially in mixed use for commercial purpose. The data contain the following information about each sold property: (1) physical characteristics such as the squared meters of living areas, the age of the property, lot size, among others; (2) property values such as the trade prices and assessment house and land values, along with their tax amounts, are used to calculate the effective tax rates.

For the purpose of estimating the rental price of each property in the real estate market, rent data were also collected from the same area between January 2001 and May 2003, posted on the web site, <http://www.ezlook.com.tw/>. There were 309 valid observations in the data set. The data contain similar, but limited, information about the characteristics of rental housing.

The estimation of the rental prices of in the real estate market by an ordinary least square regression model.

$$R = \exp(a_0 + a_1 \cdot Age + a_2 \cdot LA + a_3 \cdot SQLA + a_4 \cdot CBD + a_5 \cdot Height + a_6 \cdot Floor + a_7 \cdot Elevator + a_8 \cdot Parking + \sum_{i=1}^{11} a_{8+i} \cdot Area\ Dummies) \quad (1)$$

where  $R$  is the rent of each rental housing. Explanatory variables are:

$Age$  = Age of the house

$LA$  = Living area (square meter)

$SQLA$  = Square of living area

$CBD$  = Distance from central business district

*Height* = Height the house on the building

*Floor* = Floor of the house on the building

*Elevator* = 1 with elevator; 0 otherwise

*Parking* = 1 with parking lot; 0 otherwise

*Area Dummies* = 1. Song-shan, 2. Xin-yi, 3. Da-an, 4. Zhang-shan, 5. Zhang-zheng, 6. Da-tong, 7. Wan-hwa, 8. Wen-shan, 9. Nan-gang, 10. Nei-hu, 11. Shi-lin. Bei-tou district is treated as the benchmark one.

The result is summarized in Table 1. Substituting the parameters  $a_i$ s into the data from the real estate market, we can derive the estimated rental price for each trading property.

**Table 1** The Estimation of Rental Price<sup>#</sup>

<b>Coefficient of Variables</b>	<b>Estimate (<i>t</i>-statistic)</b>	<b>Coefficient of Variables</b>	<b>Estimate (<i>t</i>-statistic)</b>
<b>Intercept</b>	11.0722*** (74.76)	<b>Song-shan</b>	0.2503* (2.00)
<b>Age of the house (years)</b>	-0.0090*** (-4.04)	<b>Xin-yi</b>	0.1846 (1.58)
<b>Living area (square meter)</b>	0.0187*** (17.29)	<b>Da-an</b>	0.2742** (2.24)
<b>Square of living area</b>	-0.0000527*** (-8.95)	<b>Zhang-shan</b>	0.1030 (0.93)
<b>Distance from the CBD (1,000 meters)</b>	-0.0128 (-0.98)	<b>Zhang-zheng</b>	0.2048* (1.74)
<b>Height of the building</b>	0.0266*** (4.51)	<b>Da-tong</b>	0.0109 (0.08)
<b>Floor of the house on the building</b>	-0.0140** (-2.51)	<b>Wan-hwa</b>	0.0207 (0.18)
<b>Elevator</b>	-0.0080 (-0.21)	<b>Wen-shan</b>	0.0219 (0.25)
<b>Parking</b>	0.1332*** (3.40)	<b>Nan-gang</b>	-0.1687 (-1.47)
		<b>Nei-hu</b>	-0.0467 (-0.52)
		<b>Shi-lin</b>	0.1299 (1.56)

Adjusted  $R^2 = 0.8171$

Sample size = 309

\*\*\* Significance at the 1% level. \*\* Significance at the 5% level.

\* Significance at the 10% level.

### 3. Specifying Empirical Models and Their Results

In order to test the validity of new view and benefit view of property taxation, three tests are designed and conducted in this section.

Before we conduct these tests, it is helpful to distinguish the two-rate property tax system from the usual property tax system that both capital and land are taxed at the same rate. It is well known that these two taxes have different economic impacts from the viewpoint of the capital tax view. Previous studies, however, are limited by the difficulty of dividing the total tax liability of property taxes into a tax on housing and a tax on land. Thus, the interpretation of their results may be misleading somehow. The empirical models constructed in this study take explicitly these two taxes into account. The rationale and construction of the empirical models are as follows.

Without the property taxes, the value of a property,  $V$ , is equal to the summation of values of the housing service,  $H$ , and that of local public services,  $G$ , provided by the local public governments.

$$V = H + G$$

By the assumption of full capitalization, the value of the property is just the present value of future rental prices of the property,  $R$ , with discount rate,  $r$ . Namely, the rental price paid by users of the property is the annual cost for housing services and local public services.

$$V = \frac{R}{r}$$

The Hedonic pricing model is<sup>3</sup>

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<sup>3</sup> For more detailed discussion of applying the hedonic analysis of housing markets, see Sheppard (2000).

$$R = r \cdot V = r(H + G) = f(Z_i),$$

where  $Z_i$  is the attributes (physical or locational characteristics) of the property, with the value of local public service.

With the property taxes, the relationship between the rental price and values becomes

$$\frac{R_t}{r} = H + G = V + \frac{T}{r},$$

where  $R_t$  are the rental prices with property taxes and  $T$  is annual tax liabilities of property taxes.

For this study, the property tax is classified into a house tax and a land value tax, i.e.  $T = T_H + T_L$ ,

where  $T_H =$  House tax (NT\$)

$T_L =$  Land value tax (NT\$)

Therefore, the Hedonic pricing model is modified as

$$R = f(Z_i, T_H, T_L),$$

and the traditional capitalization model can be modified as<sup>4</sup>

$$V = \frac{R_t}{r + (V_H/V)\tau_H + (V_L/V)\tau_L}.$$

Where  $V = V_H + V_L$ , the value of a property,  $V$ , can be divided into house and land values,  $V_H = \frac{V_{HO}}{V_{HO} + V_{LO}}V$  and  $V_L = \frac{V_{LO}}{V_{HO} + V_{LO}}V$ , where  $V_{HO}$  is the official estimated house value and  $V_{LO}$  is the present declared land value.

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<sup>4</sup> For early survey of model of property tax capitalization, see Bloom et al. (1983) and Yinger et al. (1988). For recent evidence on property tax capitalization, see Palmon and Simith (1998a, 1998b).

$\tau_H = T_H / V_H$ . Effective tax rate of house tax (%)

$\tau_L = T_L / V_L$ . Effective tax rate of land value tax (%)

All figures of house and land value taxes for each property are calculated according to the official formula from the provisions of housing and land value taxes.

### ***Testing the Capital Intensity***

For the test of capital intensity, or *capital-land ratio*, an ordinary least square regression model is used to estimate the effects of effective rates of house tax and land value tax on the capital intensity.

$$K / L = b_0 + b_1 \cdot \tau_H + b_2 \cdot \tau_L + b_3 \cdot Age + b_4 \cdot CBD + b_5 \cdot Height + b_6 \cdot Floor + b_7 \cdot Elevator + b_8 \cdot Parking + b_9 \cdot Zoning + b_{10} \cdot Strtype \quad (2)$$

where  $K/L$  is the measure of capital intensity. Because such data is not available, we use the ratio of official estimated housing value and land lot size of the property as a proxy. Two effective tax rates are included. Other explanatory variables are defined in previous section and as follows:

*Zoning* = 1 if located in the commercial district; 0 otherwise

*Strtype* = 1 if the building is made of concrete and/or steel; 0 otherwise

Under the capital tax view, the impact of effective rate of house tax on capital intensity is negative and non-zero, while the impact of effective rate of land value tax on capital intensity is zero. Under the benefit view, both taxes have no impact on capital intensity.

The result in Table 2 shows that that the capital intensity is very sensitive to both effective tax rates of house and land. This indicates that taxes on capital do actually decrease the intensity of capital use. Moreover, the evidence that taxes on land also decrease the intensity of capital use might result from the improper division

of property values of the sample. Nevertheless, the evidence seems to favor the new view.

**Table 2** The Effects on Capital Intensity,  $K/L$

<b>Coefficient of Variables</b>	<b>Estimate (<i>t</i>-statistic)</b>
Intercept	13.7390 (0.89)
Effective tax rate of house tax (%)	-11.98*** (-3.71)
Effective tax rate of land value tax (%)	-22.64** (-2.04)
Age of the house (years)	0.2287 (0.74)
Distance from the CBD (1,000 meters)	-0.2287*** (-3.00)
Height of the building	10.47*** (11.03)
Floor of the house on the building	-0.2229 (-0.25)
Elevator	15.30*** (2.61)
Parking	-6.21 (-1.17)
Zoning	42.37*** (6.90)
Structure Type	14.91* (1.75)
Adjusted $R^2 = 0.3485$	
Sample size = 1114	

\*\*\* significance at 1% level, \*\* significance at 5% level,

\* significance at 10% level.

### ***Test of Housing Rent***

As to the effects of property tax differentials on housing rent, they are estimated by a traditional hedonic pricing model.

$$\begin{aligned}
 (\hat{R}/LA) = & c_0 + c_1 \cdot (T_H/LA) + c_2 \cdot (T_L/LA) + c_3 \cdot Age + c_4 \cdot CBD + c_5 \cdot LA \\
 & + c_6 \cdot SQA + c_7 \cdot Height + c_8 \cdot Floor + c_9 \cdot Parking \\
 & + \sum_{i=1}^{11} a_{9+i} \cdot Area\ Dummies
 \end{aligned} \tag{3}$$

where  $\hat{R}/LA$  is the estimated unit rental price per square meter of each property from the data of rental housing market in the previous section. Two taxes are included in the model and transformed into taxes per square meter. Other explanatory variables are defined as before.

Under the capital tax view, the null hypothesis in this test are that the extent of tax shifting of house tax (the parameter of  $T_H$ ,  $c_1$ ) is positive and nonzero ( $c_1$  should be between 0 and 1) and that the extent of tax shifting of land value tax (the parameter of  $T_L$ ,  $c_2$ ) is zero. Under the benefit view, the null hypothesis will be both extents of tax shifting of house tax ( $c_1$ ) and land value tax ( $c_2$ ) are unity.

The estimation is summarized in Table 3. The results show that house tax partial-shifts forward to tenants, and there is no significant effect of land value tax on housing rent. Therefore, this empirical evidence of this part test favors the capital tax view again.

**Table 3** The Hedonic Effects on Unit Rental Price of Housing,  $\hat{R}/LA$ 

Coefficient of Variables	Estimate (t-statistic)	Coefficient of Variables	Estimate (t-statistic)
Intercept	3010.91*** (80.28)	Song-shan	618.18*** (26.65)
House tax per square meter	0.9266** (2.56)	Xin-yi	489.54*** (19.73)
Land tax per square meter	0.3031 (0.95)	Da-an	725.27*** (29.13)
Age of the house (years)	-21.30*** (-40.13)	Zhang-shan	204.25*** (7.06)
Distance from the CBD (100 meters)	-25.47*** (-9.35)	Zhang-zheng	481.45*** (1.74)
Living area (square meter)	-4.4805*** (-16.75)	Da-tong	29.47 (1.27)
Square of living area	-0.0155*** (-16.77)	Wan-hwa	40.48* (1.69)
Height of the building	68.96*** (33.63)	Wen-shan	57.41*** (3.96)
Floor of the house on the building	-36.31** (-24.42)	Nan-gang	-345.54*** (-16.60)
Parking	377.12*** (35.66)	Nei-hu	-117.88*** (-7.45)
		Shi-lin	304.85*** (26.99)
Adjusted $R^2 = 0.9650$			
Sample size = 1114			
*** Significance at the 1% level. ** Significance at the 5% level. * Significance at the 10% level.			

### *Estimation of the Extent of Tax Capitalization*

Avoiding the underidentification problem in all Oates' type of amenity model and the tradition capitalization, in this stage of estimation, I adopt the type of modified capitalization model of Palmon and Smith (1998b) to test the validity of new view and benefit view.

$$\begin{aligned}
 \hat{R}/P = & d_0 + d_1 \cdot Taxrate + d_2 \cdot Age + d_3 \cdot CBD + d_4 \cdot LA \\
 & + d_5 \cdot Lotsize + d_6 \cdot Height + d_7 \cdot Floor + a_8 \cdot Elevator \\
 & + d_9 \cdot Parking + d_{10} \cdot Zoning + d_{11} \cdot Strtype + \sum_{i=1}^{11} a_{12+i} \cdot Area\ Dummies
 \end{aligned} \tag{4}$$

where  $\hat{R}/P$  is the rent-price ratio, calculated by dividing the estimated rental price of each property (derived from the data of rental housing market in previous section) by the market price of trading property. All explanatory variables are defined as before, except for the variable, *Taxrate*, which can be defined as general property tax, housing tax, and land value tax rates.

Under the capital tax view, the expected extent of capitalization of house tax is positive and between zero and one, and that the extent of capitalization of land value is unity. Under the benefit view, the null hypothesis are that both extents of capitalization of land value tax and house tax are zero. The extent of capitalization of a general property tax is also examined as comparison.

The results of three empirical capitalization models are showed in Table 4. Although the extents of property tax capitalization of all three taxes present a severe over-capitalization in the trading real estate market and we do not really know the reason why it is so, yet it still suggests that the capital tax view can not be rejected in this case.

#### 4. Conclusions

**Table 4** The Estimation of Extents of Property Tax Capitalization<sup>#</sup>

Coefficient of Variables	Estimate ( <i>t</i> -statistic)		
	Model 1	Model 2	Model 3
Interest	21.15*** (14.70)	4.88*** (15.26)	15.13*** (13.91)
General property tax rate	0.0095*** (23.73)	0.0092*** (10.91)	-0.0097*** (-11.14)
House tax rate		4.88*** (15.26)	15.13*** (13.91)
Land value tax rate			15.13*** (13.91)
Age of the house (years)	-0.0186*** (-5.11)	-0.0222*** (-5.21)	-0.0176*** (-4.14)
Distance from the CBD (1,000 meters)	0.0559*** (2.89)	0.0554*** (2.59)	0.0219*** (1.26)
Living area (square meter)	0.0095*** (-12.89)	0.0092*** (-10.69)	-0.0097*** (-11.14)
Land lot size	-0.160*** (-7.79)	-0.019*** (-7.61)	-0.159*** (-6.55)
Height of the building	-0.0087 (-0.77)	0.0426*** (3.38)	0.0803*** (6.38)
Floor of the house on the building	-0.0315*** (-3.08)	-0.0113 (-0.96)	-0.0145 (-1.21)
Elevator	-0.5868*** (-8.27)	-0.4557*** (-5.50)	-0.1888** (-0.4396)

Oates (1969) was the first one to examine the capitalization of property taxation and argued that the extent of capitalization can be viewed as a test for the Tiebout hypotheses. However, searching for tests of the validity of capital tax view and benefit new remains an important empirical work in local public finance.

The advantage of current study is the availability of data that compose of housing and land value taxes. The implications of both views can be more explicitly examined by this data set. All three tests in this study, tests of impacts of these two taxes on capital intensity, rental price, and property value, favor the capital tax view.

The puzzle we have faced in this study is why over-capitalization is so severe in the real estate market of Taipei City. This remains an open question. Some speculations include: (1) the real estate market is not efficient, that is, people overestimate the rates of return from capital and land; or some kinds of expectation of real estate market are not considered in the models; (2) the modified capitalization model proposed by Palmon and Smith (1998b) may have some flaws uncovered; and (3) there may be some measurement errors in the data set. If my guess is correct, further study following this line may put more effort on the exploration of some particular features of real estate markets, model specification and data collection. Nevertheless, this study does provide some evidences that are supportive for the capital tax view.

## References

- Aaron, Henry J. (1975), *Who Pays the Property Tax? A New View*. Washington, D.C.: Brookings Institution.
- Bloom, Howard, Helen F. Ladd and John Yinger (1983), "Are Property Taxes Capitalized into House Values?" in George R. Zodrow (ed.), *Local Provision of Public Services: The Tiebout Model after Twenty-five Years*. New York: Academic Press, 145-163.
- Carroll, Robert, and John Yinger (1994), "Is the Property Tax a Benefit Tax? The Case of Rental Housing," *National Tax Journal* 47 (2), June, 295-316.

- Fischel, William A. (2001), "Homevoter, Municipal Corporate Governance, and the Benefit View of the Property Tax," *National Tax Journal* 54 (1), 157-174.
- Hamilton, Bruce W. (1983), "A Review: Is the Property Tax a Benefit Tax?" in George R. Zodrow (ed.), *Local Provision of Public Services: The Tiebout Model after Twenty-five Years*, 85-107. New York: Academic Press.
- Mieszkowski, Peter M. (1972), "The Property Tax: An Excise Tax or a Profits Tax?" *Journal of Public Economics* 1 (1), 73-96.
- Nechyba, Thomas J. (2001), "The Benefit View and The New View: Where Do We Stand, Twenty-Five Years into the Debate?" in Wallace E. Oates (ed.), *Property Taxation and Local Government Finance*, Cambridge, Mass.: Lincoln Institute of Land Policy, Chapter 4, 113-121.
- Oates, Wallace E. (1969), "The Effects of Property Taxes and Local Public Spending on Property Values: An Empirical Study of Tax Capitalization and the Tiebout Hypothesis," *Journal of Political Economy* 77, 957-971.
- Palmon, O. and B. A. Smith (1998a), "New Evidence on Property Tax Capitalization," *Journal of Political Economy* 106, 1099-1111.
- Palmon, O. and B. A. Smith (1998b), "A New Approach for Identifying the Parameters of a Tax Capitalization Model," *Journal of Urban Economics* 44, 299-316.
- Reinhard, Raymond M. (1981), "Estimating Property Tax Capitalization: A Further Comment," *Journal of Political Economy* 89 (6), 1251-1260.
- Ross, Stephen and John Yinger (2000), "Sorting and Voting: A Review of the Literature on Urban Public Finance," in Paul Cheshire and Edwin S. Mills (eds.), *Handbook of Regional and Urban Economics*, Vol. 3. Amsterdam: North Holland, Chapter 47, 2001-2060.
- Sheppard, Stephen (2000), "Hedonic Analysis of Housing Markets," in Paul Cheshire and Edwin S. Mills (eds.), *Handbook of Regional and Urban Economics*, Vol. 3. Amsterdam: North Holland, Chapter 41, 1595-1635.
- Tiebout, C. M. (1956), "A Pure Theory of Local Expenditures," *Journal of Political Economy* 64, 416-424.
- Wassmer, Robert W. (1993), "Property Taxation, Property Base, and Property Value: An Empirical Test of the 'New View'," *National Tax Journal* 46 (2), 135-160.
- Zodrow, George R. (2001a), "Reflections on the New View and Benefit View of the Property Tax," in Wallace E. Oates (ed.), *Property Taxation and Local Government Finance*. Cambridge, Mass.: Lincoln Institute of Land Policy, Chapter 3, 79-111.
- Zodrow, George R. (2001b), "The Property Tax as a Capital Tax: A Room with Three Views," *National Tax Journal* 54 (1), 139-156.
- Zodrow, George R. (2006), "Who Pays the Property Tax?: And What Does Capitalization Tell Us about Who Pays?," *Land Lines* 18 (2), 14-19.
- Yinger, J., H. S. Bloom, A. Borsch-Supan and H. F. Ladd (1988), *Property Taxes and House Values: The Theory and Estimation of Intra-jurisdictional Property Tax Capitalization*, San Diego, CA: Academic Press.