

Why Homeowners Hate The Local Property Tax

by Robert P. Strauss

Robert P. Strauss is professor of economics and public policy at the Heinz School, Carnegie-Mellon University, Pittsburgh, and a columnist in this series.

Introduction

Glenn Fisher's recent book *The Worst Tax?*¹ chronicles the love-hate relationship most of us have with the local real property tax. *State Tax Notes* continues to follow state legislative efforts to moderate the impact of the local property tax. In this paper, drawn from research reported earlier this year, I tie together a number of stylized facts about the changing nature of long-lived business assets to explain more fundamentally why the local property tax has become so unpopular with homeowners.²

Homeowners, due to inexorable economic pressures and federal tax policy changes, necessarily are paying a higher proportion of local property taxes than in the past, and commercial and industrial real estate are correspondingly paying a smaller proportion of local property taxes than in the past. As a consequence of this shifting of the property tax burden to residential property owners, the dissonance over the property tax has been rising throughout the nation. Further, the basic economic pressures that increasingly lead residential property to support the local costs of public education and general government services are likely to persist, if not increase.

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Having explained why there is growing friction over the local real property tax and the support of local services, I hope that protagonists, especially in the school finance arena, can step back from the fray, understand their dilemma, and rededicate to problem-solving instead of government- or business-bashing.

¹ Fisher (1996). (See *State Tax Notes*, Apr. 8, 1996, p. 1115, for a review of this volume.)

² See Strauss (1997).

Some Stylized Facts

The plight of the residential property taxpayer can be explained by four separate economic and fiscal phenomena:

1. changes in the nature of U.S. business that have made their domestic real estate economically less important vis-à-vis other forms of real estate: growing competition, technological change, just-in-time inventory management, and the growing relative profitability of offshore activities of U.S. businesses;
2. federal tax law changes: in the early 1980s, the Accelerated Cost Recovery System (ACRS) created a commercial property glut that at first relieved property tax pressures on local residential real estate; however, the 1986 federal changes that created the passive loss rules and lengthened useful lives for commercial and industrial real estate made such business real estate far less tax-favored than before and caused business real property values to decelerate or decline in nominal terms;
3. the historically difficult problem of valuing business real estate; and
4. federal and state budget problems that have led to declines in state aid to education, with the result that the local share of public education costs financed by the property tax has grown.

Changes in the Nature Of the Economy

The growing competition in various sectors of the U.S. economy has meant that those facing more competition have had to be more cost-conscious than before. Economizing on space for production and management purposes has a secondary impact on the local real estate base, as there is less area subject to real estate taxation.

It is generally acknowledged that U.S. manufacturing business increasingly is deriving its profits from overseas, as contrasted with domestic activities. Two sorts of effects result from this: a tendency to place new manufacturing assets overseas, which means that the domestic business real estate tax base will grow less quickly, and a reduction in net income attributable to domestic assets, with the result that the income approach will tend to generate lower estimates of market value of these domestic manufacturing assets.

Technology has had related impacts. The use of just-in-time inventory techniques has meant that less space is required to produce than previously. In industries such as computers and electronics, which continue to witness miniaturization, many

**Table 1:
Effects of Shift for Hypothetical School District**

Initial Period (A)	Number (B)	Value (C)	Total (D)
1 Homes	3,500	\$100,000	\$350,000,000
2 Commercial Property	100	\$3,500,000	\$350,000,000
3 Total Market Value (MV)			\$700,000,000
4 Residential Share			50.0%
	Students	\$/Student	Total
5 Budget	\$2,000	\$5,500	\$11,000,000
6 State Aid	$2,000 * 3,500 =$ \$7,000,000	$-0.005 * MV =$ (\$3,500,000)	\$3,500,000
7 Property Tax			\$7,500,000
8 Millage (Property Tax/MV)			0.0107
9 Tax per House			\$1,071
10 Family Income		\$31,000	
11 House Tax/Family Income	\$1,071	+ \$31,000	3.46%
Five Years Later (A)	Number (B)	Value (C)	Total (D)
1a Homes	3,500	\$115,927	\$405,745,926
2a Commercial Property	100	\$3,500,000	\$350,000,000
3a Total Market Value (MV)			\$755,745,926
4a Residential Share			53.7%
	Students	\$/Student	Total
5a Budget	2,000	\$6,376	\$12,752,015
6a State Aid	$2,000 * 3,500 =$ \$7,000,000	$-0.005 * MV =$ (\$3,778,730)	\$3,221,270
7a Property Tax			\$9,530,744
8a Millage (Property Tax/MV)			0.0126
9a Tax per House			\$1,462
10a Family Income		\$35,937	
11a House Tax/Family Income	\$1,462	+ \$35,937	4.07%

Source: Strauss (1997).

attending effects on assessed values and property tax yields. Again, just as depreciation liberalization has direct effects on the return of the property in question, and indirect effects on the personal income tax situation of the owner, there are ways to curtail the value of such depreciation deductions so that the taxable income from the property goes up and the effects on the personal income tax return of the owner result in higher personal tax liabilities. As a consequence of these direct and indirect tax increases on the property's owner(s), the property will be less valuable than before and these income tax increases will drive down the value of the property in the marketplace. Again, as the assessment process measures the new (depressed) value of the property, the assessed value of this property will decline and property taxes will fall.

Technical Problems In Assessing Commercial and Industrial Real Estate

It is well-known in the professional assessment literature that where there are few transactions of a particular type of property, it is more difficult to establish market values. With the decline of manufacturing in the 1980s, many industrial assets were idled or underutilized. Reliance on the income method of appraisal would result in lowering the estimated market values of these properties.

space- and labor-intensive forms of manufacturing have been replaced by standardized (and smaller) components. The hand-soldered logic boards of mainframe computers are largely replaced by single-chip components on a personal computer. Again, these changes have employment and space implications that have an impact on local tax bases.

Changing Federal Tax Treatment Of Long-Lived Assets

The manner in which commercial and industrial property can be depreciated for federal tax purposes has changed materially over the past 15 years; this has directly and indirectly made them more valuable and then less valuable to individual investors. There are two principal ways in which depreciation has been liberalized. First, the time span over which the depreciation is allowed has been often shortened, so that more depreciation per year in the early years of the asset's life can be deducted. Second, the manner in which the annual depreciation charge is calculated has been changed; so that for an asset of a fixed tax life, relatively more depreciation can be deducted earlier. It should be emphasized that if tax depreciation deductions are made *less* generous than under current law, the value of commercial and industrial real estate can decline, with

Changing Federal and State Budgetary Positions

Other than Medicaid, federal aid to the states has been declining in inflation-adjusted terms for a number of years. Beginning in the 1980s, federal revenues for public education began a substantial decline from 9.2 percent, and bottomed in 1990 at under 6.5 percent of total local school spending. Since 1990, the figure has risen above 7 percent. State aid to education overall has also declined. The state share of total school revenues reached almost 50 percent in 1986, and has fallen to 46 percent since 1993. Local revenues for public education have thus risen as a proportion of the total from 41 percent in 1979 to almost 47 percent in 1994. In 1993, the local share of total revenues exceeded the state share for the first time in the last 15 years.

Because the local property tax is the linchpin of local finance, and education is roughly half of total local spending, it is thus no surprise that property taxes in general, and residen-

Table 2
Residential Property's Share of Total Assessed Value in 18 States

	Time Period of Data (2)	Lowest Residential Share (3)	Year of Lowest Share (4)	Highest Residential Share (5)	Year of Highest Share (6)	% Points of Change (7)	% Change in Residential Share (8)
Colorado	1984-95	54.1%	1984	70.8%	1995	16.7%	30.9%
Illinois (EV)	1981-92	49.6	1981	53.1	1992	3.5	7.1
Indiana	1972-92	44.9	1972	48.0	1992	3.1	6.9
Iowa	1981-94	43.6	1981	47.7	1994	4.1	9.4
Kansas	1976-94	41.1	1976	73.3	1994	32.2	78.3
Maryland	1962-93	71.5	1962	74.1	1993	2.6	3.6
Massachusetts	1983-95	64.4	1983	78.5	1995	14.1	21.9
Michigan	1966-94	59.2	1966	70.9	1994	11.7	19.8
Minnesota (MV)	1974-92	49.4	1974	56.3	1994	6.9	14.0
Missouri	1979-94	33.5	1984	43.3	1994	9.8	29.3
Nebraska	1989-94	34.5	1990	37.6	1994	3.1	9.0
New Mexico	1979-94	29.1	1981	48.1	1994	19.0	65.3
Nevada	1989-92	36.9	1989	45.0	1992	8.1	22.0
Oregon	1976-93	34.6	1976	46.7	1993	12.1	35.0
Pennsylvania	1977-92	62.5	1977	67.3	1990	4.8	7.7
Texas	1983-94	33.0	1983	41.3	1994	8.3	25.2
Washington	1989-94	59.5	1989	64.3	1994	4.8	8.1
Wisconsin	1951-92	49.6	1951	66.5	1992	16.9	34.1

Source: Strauss (1997). EV — Equalized Value. MV — Market Value.

tial taxes in particular, have been rising to meet growing local service costs.

Summary

In summary, as U.S. businesses have become more cost-conscious, they have sought to use less domestic space (and therefore less real estate) for their activities. At the margin, physical investment overseas has meant that local tax bases are affected. Federal depreciation changes have made business real estate far less tax-favored than before, which implies sluggish growth in valuation vis-à-vis other real estate. Finally, less federal and state aid to local governments has meant that they must raise millage, which causes property taxes to rise as well.

A Spreadsheet Model Of These Stylized Facts

The above discussion indicated in general terms how changes in federal depreciation policy can alter the composition of the local property tax base. Here, these effects are combined with other assumptions about state school aid for a hypothetical school district to demonstrate how small changes in the composition of the property tax base can have large numerical effects on residential property taxes and the burden of such taxes on family income.

To show this, we construct a hypothetical school district containing 2,000 students, roughly at the median district size in the 1990s. The district is composed of 3,500 houses, each valued at \$100,000, which is close to the national median sales price of \$106,000 for an existing single-family dwelling in 1993.³ There

³ See tables 1208 and 1209, 1994 Statistical Abstract of the U.S. This price is above the market values of median houses for the Midwest and South, and below the market value of median houses in the Northeast, South, and West.

are 100 office buildings with a market value of \$3.5 million each, so the total market value of real estate in the district is \$700 million, and residential real estate represents 50 percent of the total market value of real estate. (See Table 1.) For property tax assessment purposes, all property is valued at 100 percent of market value.

The local school board seeks to spend \$5,500 per student for operating and capital purposes; this is a slightly above average school budget, but by no means exceptional for many school districts in the 1990s. With 2,000 students, this means the overall school budget to be financed is \$11 million.

In this example, the state provides school aid via a foundation formula, the approach used in 38 states:⁴

$$A_i = FN_i - t_s \text{ EqualizedValue}_i \quad (1)$$

where A_i is the state school aid payment to the i 'th district, F is the per-pupil foundation payment, N_i is the number of students in the district, t_s is the state-mandated local property tax rate in mills, and EqualizedValue_i is the assessed value in the district measured in a manner consistent across school districts.

The hypothetical state assumes the local district imposes a minimum property tax millage of 0.005 against a per-pupil guarantee of \$3,500. State aid to the hypothetical district is thus \$3.5 million. (See Row 6 of Table 1.) To balance the budget of \$11 million, the district must impose \$7.5 million of property taxes (\$11 million budget - \$3.5 million in state aid). With a property tax base of \$700 million, millage must be 0.0107 (\$7.5 million real estate taxes/\$700 million in real estate tax base).

⁴ Gold, Smith, and Lawton (1995).

With millage of 0.0107 and the market value of the representative house equal to \$100,000, the school property tax will be \$1,070 per house. The representative family in our hypothetical school district has an income of \$31,000, which is about the U.S. median family income in the 1990s, so the school property taxes of \$1,070 represent 3.46 percent of family income (\$1,070/\$31,000).

Now, assume that five years pass, that housing values rise by 3 percent per year, that commercial property does not change in value, and that the real estate assessment process captures these changes in value. Increasing house values and stagnant commercial property values are consistent with the federal tax law changes in the Tax Reform Act of 1986 as discussed above. The \$100,000 home rises in value to \$115,927. With residential values rising, and constant commercial property values, the residential share of total market value will increase. (See rows 1a through 4a of Table 1.) Compare 53 percent five years later with 50 percent in the initial period.

Also, assume that the local school district raises per-pupil spending by the same amount, 3 percent per year; the new school budget is now \$12.752 million. Assume that the state does not increase its foundation amount of \$3,500 per year at all. Because market values continue to rise under this scenario, state aid will fall to \$3.221 million, and property taxes must now increase to \$9.531 million to balance the budget. Thus the school property tax must increase by 27 percent to balance the budget even though the school budget increased by only 15.9 percent over five years.

Finally, assume that family income grows by 3 percent per year.

Such relatively modest growth patterns lead to the remarkable result that the school property tax on the original house will be 36.7 percent higher than initially (\$1,462/\$1,070). (See row 9a of Table 1.) Further, even though family income grew at 3 percent per year to a new level of \$35,937, the new level of school property taxes is a *higher* fraction of family income than before: compare 4.07 percent with 3.46 percent, a 17.6 percent increase in burden.

Stagnant state school aid, stagnant commercial and industrial real estate values, growing residential real estate values, and municipal and school budgets growing at the same rate as family income imply dramatically higher real estate taxes on homes.

It is relatively easy to see the effect of changing the assumptions underlying Table 1 to obtain further insights. For example, if commercial property values went up rather than residential property values, analogous to the period of the early 1980s, the results would be identical to those in Table 1 but opposite in direction; there would be disproportionately large reductions in residential real estate taxes and associated real estate tax burdens on family income. If family income were not to rise by 3 percent per year as initially assumed, it is easy to see that the burden of the higher property taxes shown in Table 1 would rise

dramatically from 4.07 to 4.72 percent; that is, consider \$1,462/\$31,000 rather than \$1,462/\$35,937.

What we see from working through a specific numerical example is that stagnant state school aid, stagnant commercial and industrial real estate values, growing residential real estate values, and municipal and school budgets growing at the same rate as family income imply dramatically *higher* real estate taxes on homes and family income. In turn, they also sow the seeds of political discontent with the local property tax.

Evidence From 18 States of Growing Relative Importance of Residential Property Tax Base

From an empirical point of view, the long-term changes in the burden of the local property tax have been far larger in states than the above numerical example. Table 2 (previous page) displays the analysis of 18 states' property tax bases over time, and indicates that in many states, the importance of the residential property tax base grew by 10 or 30 percent or more, compared with the 7 percent shift in the above numerical example.⁵ Moreover, in states where it has become more important there have been either very substantial state legislative changes in the reliance on the property tax (e.g., Michigan) to quell taxpayer revolts or continued (failed) efforts in state legislatures to mollify angry homeowners.

Conclusions

The transformation in the U.S. economy away from manufacturing and to services and the creation of intangible wealth, coupled with radically changing federal tax treatment of commercial and industrial property, has had strong implications for the composition of the local property tax base. Since 1981, there is strong evidence that the burden of residential real property taxes fell with the commercial property boom set off by the 1981 federal depreciation liberalizations, and then rose systematically after they were curtailed and then eliminated in the Tax Reform Act of 1986. Residential property's *share* of assessed and taxable values has risen in many states by as much as 10 to 15 percentage points at a time when personal incomes for most homeowners have been relatively stagnant in inflation-adjusted terms.

If the growing *relative* pressure on residential property owners, especially to finance local education, persists, it is difficult to envision growth in the support for public education without policy adaptations to the sources of their complaints. The calculations in Table 1 remind us that the school taxes on a family's home depend on a variety of local, state, and national factors: the initial composition of the local property tax base, the efficacy of the local property tax assessment process; the level of school enrollment and target level of per-pupil spending; the manner in which state equalizing aid is provided; and the long-run effects of federal tax incentives or disincentives for the investment in long-lived business assets.

The combination of growing student enrollments, more heavily weighted by secondary students, who are inherently more expensive to educate;⁶ a desire by local school boards to

⁵ See Column (8) of Table 2.

⁶ In 1995, total public school enrollment was 45 million, and secondary school students were 35.6 percent of the total; by 2004, total enrollment will be 49.5 million, and secondary student enrollment will be 37.1 percent. See U.S. Bureau of the Census (1995), Table 223.

increase per-pupil spending by at least the cost of living; and stagnant state aid portend growing reliance on the local school property tax to balance local school budgets. Equally likely is the continued evolution of the U.S. economy away from manufacturing, and continued sluggishness in commercial and industrial property values. All of these factors will continue to increase for the next decade the share of local property taxes borne by residential property owners, and continue to inflame arguments over the adequacy and nature of school finance.

Four policies deserve investigation as acceptable mechanisms to moderate the projected conflict between school boards and homeowners (and municipal councils and homeowners):

1. improving accuracy and frequency of property assessments to ensure that commercial and industrial property are valued on a timely and accurate basis;
2. state assessment and taxation of commercial and industrial property and distribution of the proceeds back to local school districts as part of fiscal equalization formulae;⁷
3. reversing the long-term decline in state aid to education, and increasing the state role through higher state income and sales taxes, which would be substituted for local property taxes; and
4. diversification of the local school base away from the local school property tax to a combination of local property taxation and local income taxation.⁸

One can find among the states examples of such policies; however, no state has adopted all of them. Given the strong likelihood that the pressures on residential property will grow inexorably, it seems likely that supporters of public education will need to actively consider these approaches to school finance in order to achieve educational policy objectives.

⁷ For an analysis of the implications of this type of property tax reform in New York, see Ladd and Harris (1995).

⁸ For an elaboration on the rationale and impact of moving to the local income tax for local school finance, see Strauss (1993) and Strauss (1995).

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