Property Tax in Upstate New York

The property tax in upstate New York is extremely high. That the tax is so high explains why the house prices are low compared with other parts of the country.


GOOD GRIEF!
HOME-
OWNERS
PROPERTY
TAX
BILL

Ownership Cost

A home buyer faces four costs:

- purchase price;
- property tax;
- maintenance cost;
- utility cost.

The objective here is to compare the purchase price with the cost of the property tax.

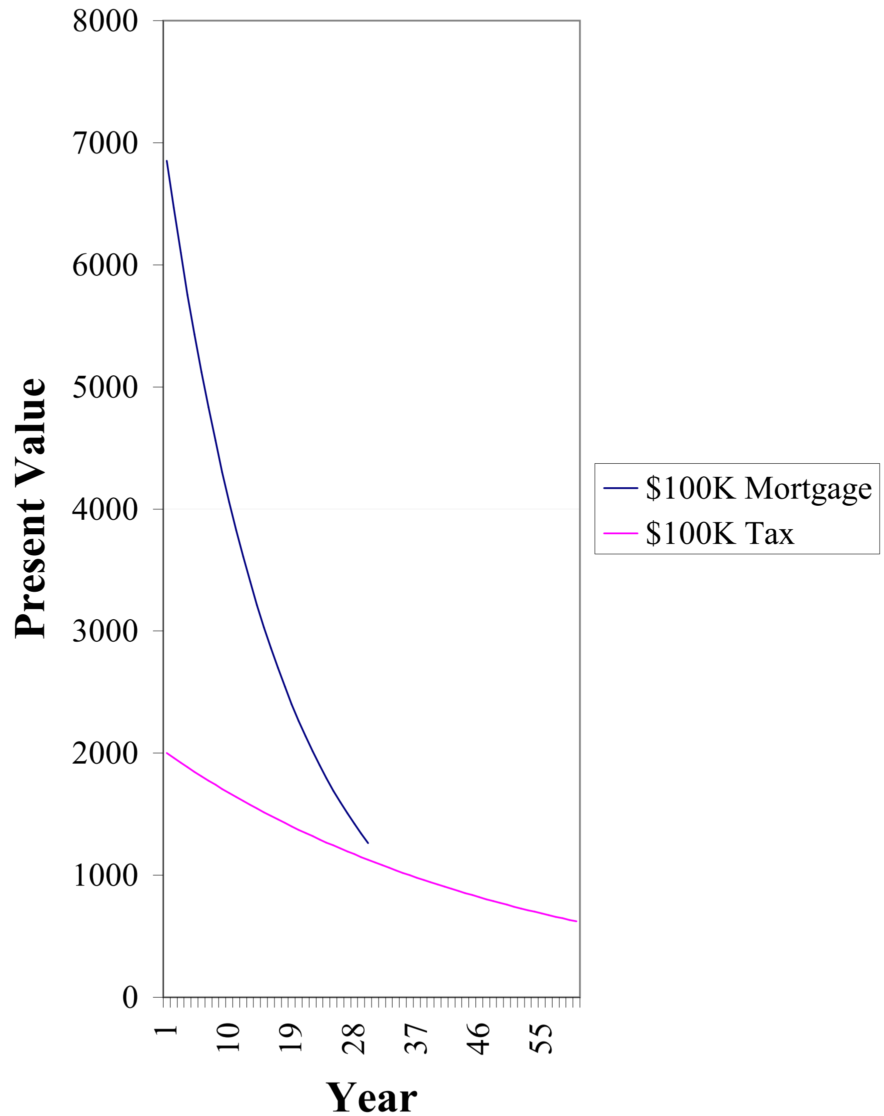
Mortgage Payment

For simplicity, let us assume that the home buyer finances the purchase entirely by a mortgage loan.

Consider a conventional thirty-year mortgage: the home buyer pays a fixed amount each month for thirty years to pay off the loan.

Figure (1) graphs the present value of these payments for a \$100,000 mortgage with a 6% nominal interest rate. The annual payment is \$6,854. Most of the present value is paid at the beginning, 53% during the first ten years. After thirty years, the payment is zero.

Figure 1: Present Values



Property Tax

The property tax is levied as a percentage of the market value. As time passes, the tax rises, as inflation occurs. Unlike the mortgage, which is paid off after thirty years, the property tax is a perpetuity, continuing forever.

Let us model the property tax as a fixed real amount. In contrast, the mortgage payment is a fixed nominal amount.

Present Value of the Property Tax

To find the present value of the property tax, discount by the real interest rate. The interest rate on a long-term inflation-protected Treasury bond is 2%. Consequently the present value of a real property tax of \$2,000 is $\$2,000/.02 = \$100,000$.

Time Pattern

Figure (1) also graphs the present value of this property tax.

In contrast to the mortgage payment, only 18% of the present value is paid during the first ten years; and only 47% is paid during the first thirty years. Much of the present value is paid during the distant future.

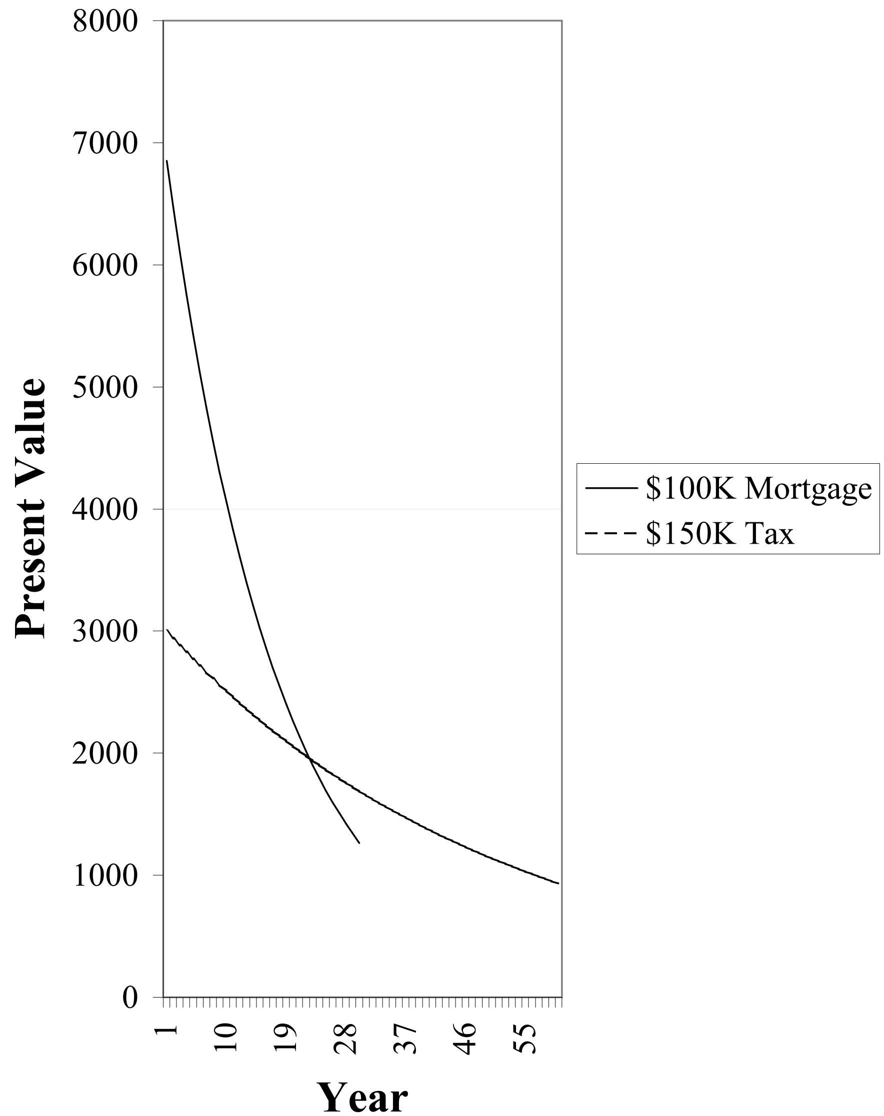
Upstate New York

In upstate New York, a typical property tax is 3% of the market value. For a house with a market value of \$100,000, the real property tax is \$3,000, with present value \$150,000.

Together the \$100,000 purchase price and the \$150,000 property tax constitute a cost of \$250,000 to the home buyer.

Figure (2) compares the present value of the mortgage payment versus the present value of the property tax. Even though the latter is 50% higher, the property tax does not exceed the mortgage payment until year 23.

Figure 2: Mortgage Versus Property Tax



Relative Size

The ratio of the present value of the property tax to the purchase price depends on the ratio of the property tax rate to the 2% real interest rate. In the example above, the ratio is 3/2. If the property tax rate were 2%, then the present value of the property tax would equal the purchase price.

The property tax varies greatly across the country, but elsewhere a tax of 1% of market value is seen as high. For example, in the Chicago area, the property tax rate is perhaps 1%. The present value of the property tax is then half the purchase price. In Hawaii , the property tax rate is low, 1/4% of market value (and the market value is high). The present value of the property tax is then one-eighth of the purchase price.

Effect on Market Value

How does the property tax affect the market value of a house?

Payment for Services

One point-of-view is that there is no effect. The tax is just a payment for services received. More services require a higher tax, without any effect on the market value.

Construction Cost

A different point-of-view also implies no effect: a house costs a certain amount to build, so in market equilibrium it must sell for this cost. Regardless of the relationship between the tax and the services received, the price of the house will be the cost of construction.

Variation of House Prices

Yet house prices differ greatly around the country. Many observers are puzzled why house prices in many places are so much higher than in upstate New York.

Effect on Market Value

An alternative hypothesis is that a house of a given size and quality is worth a set amount, the same amount everywhere. In market equilibrium, together the different costs—purchase price, property tax, maintenance cost, and utility cost—must add up to this amount.

If the property tax were less, it follows that the market value would be greater by the amount of the tax reduction.

In the example, the total value of the house is \$250,000, divided between purchase price and property tax. In upstate New York, the present value of the property tax is \$150,000, so the market value of the house is \$100,000.

For the Chicago area, having a property tax rate of 1%, the market value would then be \$166,667; and the real property tax would be \$1,667, with present value \$83,333. The market value is 67% higher than in upstate New York.

In Hawaii, with a low property tax (1/4% of market value), the market value is high, \$222,222. The real property tax would be \$556, with a present value of \$27,778. The market value is 122% higher.

Timing and the Accumulation of Equity

In Hawaii, much of the present value of the cost of housing falls in the first ten years. Consequently initially the cash outlay is very high, but the homeowner is compensated by the accumulation of equity.

In upstate New York, in contrast, much of the present value falls in the distant future. Housing is "affordable," in that initially the cash outlay is lower than in Hawaii. However this saving is offset exactly by a failure to accumulate much equity.

Albany Area

Within the Albany metropolitan area, the property tax rate is high everywhere, but is higher in some communities than others. Where the property tax rate is higher, market values are lower.

Stagnant Economy

The hypothesis that a house has a set value is especially attractive in a place with a stagnant economy (upstate New York). New construction is minimal, so the cost of construction does not determine the price of a house. The price of a house may be less than the construction cost, so no new houses are built.

Comparable Housing Costs

When one adds in the property tax cost, housing costs across the country become more similar in magnitude, although upstate New York remains lower than the highest cost areas.

The American Dream

An American dream is to one's own house. The conventional wisdom is that owning a home is wiser than renting, and this wisdom is valid. One gradually pays off the mortgage, and the home is a nest egg of savings important for retirement.

In upstate New York, in contrast the home buyer effectively owns only 40% of his home and "rents" the remaining 60% via the high property tax. Although buying a home does gradually build up a nest egg, the nest egg is small relative to the total expenditure, since the market value is small.