Example 15.1
The Welfare Cost of Subsidies to Home Ownership in the Netherlands[1]*

The housing-apartment example in Chapter 14 of the textbook demonstrates that subsidies to home ownership in the U.S. federal personal income tax are likely to generate both inefficiencies and inequities. The inefficiencies arise because the subsidies favor home ownership at the expense of renting. The inequities arise because housing markets segment by income. As such, the subsidies are worth more to high-income taxpayers than to low-income taxpayers, which reduces the progressivity built into the graduated tax rates.

The U.S. is not unique in this regard. Many of the industrialized countries provide subsidies for home ownership within their graduated income taxes. As housing prices rose over the past 15 to 20 years, the value of these housing subsidies rose as well, and the higher the subsidies, the greater the resulting inefficiencies and inequities. This has led a number of European countries to reconsider the subsidies and ask whether the supposed benefits of the subsidies are worth the costs to efficiency and equity. The U.K. and Sweden decided that they are not. The U.K. recently phased out the subsidies and Sweden eliminated them in one stroke. The Netherlands may be the next country to eliminate them. The subsidies to home ownership in the Netherlands are large, about 20% of the annual rental value of a home on average, and they have grown from €5 billion in 1995 to €14 billion in 2005.[1] This example considers the efficiency implications of the subsidies to home ownership in the Netherlands and in doing so expands on the discussion in Chapter 14 of the text.

Externality Arguments for Subsidizing Home Ownership

The traditional argument for subsidizing home ownership is that it generates a number of positive externalities. Relative to renters, homeowners are thought to maintain their

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[1] Ewijk, C. van, Jacobs, B., and Mooij, R. de (2007) Welfare Effects of Fiscal Subsidies on Home Ownership in the Netherlands, *De Economist* **155**(3). The increase in the value of the subsidy is on p. 323, the calculation of the 20% subsidy rate is on pp. 326–7.

properties better, which increases the value of their neighbor's properties, and to offer more support to the local public schools. Some research has also suggested a positive association between home ownership and more stable family relationships. Countering these benefits is a potential negative externality, that homeowners tend to be less mobile than renters and therefore less willing to respond to better labor market opportunities, which in turn lowers the productivity of the economy. The positive externalities carried the argument in the Netherlands and other countries that introduced the housing subsidies, but today, as the subsidies have grown, many countries such as the Netherlands are questioning whether the positive externalities are worth the costs.

The Goal of Neutral Taxation of Assets

One important efficiency goal in the taxation of assets is that taxes be neutral, meaning that the tax system itself generates no biases for or against particular classes of assets. The taxation of owner-occupied housing in the Netherlands violates neutrality in two respects. First, the income earned on most assets is taxed on a presumptive basis. The net value of any asset, equal to the value of the asset minus any debt incurred to finance the asset, is presumed to earn a rate of return of 4%, and the return is then taxed at a rate of 30%. Owner-occupied housing, in contrast, is taxed under the progressive income tax on labor income, which has graduated tax rates that range from 32% on the lowest incomes to 52% on the highest incomes. The average tax rate on homeowners is 42%, 12 percentage points higher than the tax rate of 30% on income from other assets. Second, owner-occupied housing receives two advantages within the labor tax. One is that interest payments on mortgages are deductible under the labor income tax, whereas interest on debt incurred to finance other assets is not deductible under the presumptive tax on income from capital. The other is that the imputed rental income on owner-occupied housing is set very low, averaging only about 0.6% of gross housing value. Since the interest rate on mortgages is well above 0.6%, the returns to owner-occupied housing are subsidized rather than taxed. The overall subsidy that owner-occupied housing receives relative to other assets is the direct net subsidy, equal to the mortgage interest deduction less the tax on the imputed rental value, plus the tax that would have been paid under the presumptive capital income tax, equal 30% times 4% of the net housing value. Van Ewijk et al. estimate the relative subsidy was €17 billion in 2006. They subtract from this the revenue from a 6% tax on housing transactions, equal to €3 billion, for a net subsidy of 14 billion.[2]

Note that the two housing subsidies also give an advantage under the tax laws to home-ownership relative to renting. A family that owns its home receives the net subsidy described above, whereas a family that lives in a rental unit receives no deduction under the tax. Even so, the rental housing market in the Netherlands is heavily regulated. Low-income households receive rent assistance, and many rents are subject to price ceilings (rent controls). Therefore, one possible justification for the housing subsidies under the labor income tax is to offset the subsidies to the rental market. But this offset would

[2] Ibid., p. 326.

apply mostly to the low-income families that receive rent assistance. Also, a more efficient choice would be to remove both the housing subsidies under the labor tax and the rent controls, and provide more general transfers to those individuals and families with low incomes.

General Equilibrium Effects

The nature of the inefficiencies resulting from the housing subsidies depends on general equilibrium effects that were ignored by the partial equilibrium analysis in the textbook. And the key to the general equilibrium effects is the supply elasticity of housing units. If the supply of housing is perfectly elastic, that is, housing is supplied at constant marginal cost, then the resulting inefficiencies are due entirely to favoring homeownership over renting. But if the supply of housing units is less than perfectly elastic, then part of the price of housing represents an economic rent to fixed land. Moreover land rents can vary depending on the location of the land. If the supply of housing units were perfectly inelastic, then the entire return to the supply of housing is an economic rent to the land and its location.

Consider the two limiting supply elasticities to see the range of possibilities. If the supply of housing units were perfectly elastic, then the efficiency loss from too much home ownership is measured by the deadweight loss formula given in the text for a single market: $L = {}^1/_2\, t^2 E_{h,p} PH$, where t = the subsidy rate on housing, $E_{h,p}$ = the compensated price elasticity of demand for housing, and PH = total expenditures on housing. Alternatively, $L = {}^1/_2 tE_{H,p}(tPH)$, where tPH is the amount of the subsidy. Van Ewijk et al. assume that, for the Netherlands, t =.2, $E_{H,P}$ =.75, and (tPH) = €14 billion. Therefore, the deadweight loss is L = ½(.2)(.75)(14) = €1 billion from the overconsumption of housing.[3]

If the supply of housing were perfectly inelastic, then the subsidy to owner-occupied housing cannot affect the quantity of housing supplied. Thus there is no deadweight loss in the market for housing. The subsidy is effectively lump sum and serves only to increase the economic rents to land and location. There is still a deadweight loss from the subsidy, however, because the subsidy requires higher tax rates on labor to raise a given amount of revenue, which lowers the supply of labor and increases the deadweight loss from the taxation of labor. Removing the subsidy has no effect on the market for housing other than reducing the economic rents to land and location. But since it allows for a reduction of the tax rates on labor, it increases the supply of labor and lowers the deadweight loss from the tax. Van Ewijk et al. assume the compensated supply elasticity of labor in the Netherlands is ${}^1/_3$ and that removing the housing subsidies would allow the income tax rates to be lowered by 6% on average. Therefore the increase in the labor supply is $({}^1/_3)(.06) = .02 = 2\%$, which they also assume would be the approximate increase in GDP, since the supply of capital to the Netherlands is highly elastic. From this gain must be subtracted the loss to workers from

[3] Ibid., p. 331.

the reduction in their leisure time. In the Netherlands, the combined tax wedge between the real wage paid by firms and the real wage received by workers is approximately 60%. Therefore, as a first pass approximation, measure the payment for the loss of leisure as .4 times the increase in the labor supply, or .8% [= (.4)(2%)]. Therefore the efficiency gain from removing the housing subsidy and reducing the labor tax rates is 1.2% of GDP, which is approximately €6 billion.[4]

If, realistically, the supply of housing units is between the two extremes, then removing the housing subsidy yields dual efficiency gains, one from the reduction in owner-occupied housing relative to renting and the other from the reduction of the labor tax rates. The overall gain would be somewhere between the €1 billion and €6 billion estimates in the limiting cases. Van Ewijk et al. believe that the supply of housing units in the Netherlands is much closer to perfectly inelastic than perfectly elastic, so that the actual efficiency gain is likely to be closer to €6 billion than to €1 billion.

The question, then, for the citizens of the Netherlands to ponder is whether the externalities from homeownership are sufficient to justify deadweight efficiency losses of nearly €6 billion a year.

Sources

Ewijk, C. van, Jacobs, B., and Mooij, R. de (2007) Welfare Effects of Fiscal Subsidies on Home Ownership in the Netherlands, *De Economist* **155**(3): 323–36

Thalmann, P., (2007) Tenure-neutral and Equitable Housing Taxation, *Urban Studies* **44**(2): 275–96

[4] Ibid., pp. 331–2. Measuring the value of the loss of leisure time at the net-of-tax real wage is correct only if the (compensated) supply of labor is perfectly elastic. Since the compensated supply of labor is upward sloping, this approximation somewhat understates the loss of leisure time and therefore overstates the gain to removing the housing subsidy.