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Income taxes, property values, and migration ☆

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Abstract

We consider the effects of income redistribution when people can migrate from one country to another, and when land within each country is heterogeneous. Taxes related to income can then affect property values, and can induce migration, which further affects property values. We show that under these conditions a utilitarian government should never equalize after-tax incomes. If migration is impossible, it may even transfer income from the poor to the rich, reducing the rents earned by absentee landlords. The redistributive tax on the rich may be higher or lower when the rich can migrate than when they cannot. A Rawlsian government in the absence of mobility will equalize after-tax incomes. Under mobility, Rawlsian governments cut their taxes if and only if the relative pre-tax income of the poor is sufficiently low.

JEL classification: H21; H7; R21; R23
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1. Introduction

A state or other jurisdiction which imposes high taxes on the rich may induce some residents to move away. Such migration would appear to limit the government's ability to redistribute income or to finance generous social benefits. An extensive literature, starting with Tiebout (1956), identifies conditions under which interjurisdictional competition allows citizens to consume their preferred combination of public services by choosing the jurisdiction in which to live,

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with each jurisdiction collecting taxes which just cover the cost of the public goods it provides. Despite this theoretical prediction of no redistribution, governments often redistribute. A race to the bottom is not universal.

Several factors may limit migration: moving is costly; some people prefer one location over another; property values decline in response to higher taxes, thereby reducing the incentives to move. Westhoff (1977), Epple et al. (1984), Goodspeed (1989), Epple and Romer (1991) and Hansen and Kessler (2001) conclude that redistribution and migration stratify communities. The rich end up living in communities imposing low redistributive taxes. This literature assumes that everyone is perfectly mobile and that land is homogeneous. An appropriately defined marginal rate of substitution between housing and other consumption is assumed to vary monotonically across households. Use of such a monotonicity condition on the marginal rate of substitution was first introduced by Ellickson (1971). Under this assumption, households will completely stratify by income across jurisdictions.

We shall examine redistribution financed by an income tax, in the presence of heterogeneous land and differential mobility. In particular, we suppose good locations are scarce: people who want to live near the beach or on top of a mountain with a gorgeous view will find such locations limited. This assumption corresponds to the monocentric city model (see Fujita, 1989). Our model also assumes that the rich, but not the poor, can migrate. This pattern is consistent with behavior in the European Union, where migration is disproportionately large among the highly educated (Docquier and Marfouk, 2004). Like Goodspeed (1989) and Hansen and Kessler (2001), we analyze income taxation.[1] Unlike those papers, we allow for differential mobility and heterogeneous land within each jurisdiction.[2] We also assume that governments set taxes on mobile rich people before they migrate, whereas Goodspeed (1989) and Hansen and Kessler (2001) assume that migration decisions are made before tax rates are chosen.

We incorporate the insights of urban economics, namely that taxes are partly capitalized in property values and rents and that land is heterogeneous. These different assumptions modify some conventional results in the public finance literature. A key insight of the literature on tax competition is that mobility of taxpayers reduces the scope for redistribution, and that governments will impose low taxes on persons who may leave the country. This mobility would imply that a utilitarian government aiming to transfer income from the rich to the poor in the absence of migration would redistribute less if the rich can emigrate. We find instead that migration can increase redistribution. We also find that even when taxation does not distort labor supply, a utilitarian government does not fully equalize incomes in a closed economy; it may even engage in regressive redistribution. If migration is possible, a utilitarian government will not impose regressive taxes.

2. Assumptions

Consider two jurisdictions. The jurisdictions are ex ante identical and consist of heterogeneous land. For example, the jurisdiction could be viewed as having one hill, or one major city. In the hill interpretation, higher elevations have a better climate or a better view. In the city interpretation, quality declines with distance from the city center. For simplicity, denote land quality by elevation e. Elevation increases linearly from 0 to 1. Each elevation can accommodate a density of one resident. Land is owned by absentee landlords, as in Epple and Romer (1991). Each person within a jurisdiction chooses where to live; the rent at elevation e is c_e.

There are two types of citizens. In both jurisdictions, the pre-tax income of each rich person is y^{R}; the pre-tax income of each poor person is y^{P}. Initially, each jurisdiction has n^{R} rich people; migration can change that number. The number of poor residents is fixed at n^{P}; they never migrate. Assume that $n^{\mathrm{P}}+2n^{\mathrm{R}}\leq 1$, ensuring sufficient space in each jurisdiction for immobile domestic poor and mobile rich from both jurisdictions. All citizens have identical utility functions. An individual's utility defined over consumption of goods (x) and elevation (e) is

$$U = u(x) + v(e) = \ln(x) + \ln(e). \tag{1}$$

Governments can redistribute income between the rich and the poor using group-specific lump-sum taxes. A lump-sum tax on each rich person is denoted by τ. A positive τ has the government transfer income from the rich to the poor; a negative τ implies regressive redistribution. Let the number of rich people in jurisdiction i in the equilibrium with

[1] Wildasin (1991), Christiansen et al. (1994) and Sinn (1997) explain how migration and possibilities to redistribute income are influenced by relative employment and earnings opportunities. We abstract from this mechanism. We also ignore property taxation, which is analyzed in the presence of homogeneous land by Epple et al. (1984), Epple and Romer (1991) and Wilson (2003), among others.

[2] Also in Goodspeed (1989) and Hansen and Kessler (2001), land is scarce but it is homogeneous.