



Income segregation from local income taxation when households differ in both preferences and incomes

Kurt Schmidheiny*

*Department of Economics, Tufts University, Braker Hall, Medford, MA 02155, USA
CESifo, Munich, Germany*

Received 3 March 2003; received in revised form 4 July 2005; accepted 20 October 2005
Available online 30 January 2006

Abstract

This paper presents a model of an urban area with local income taxes used to finance a local public good. Households differ in both incomes and their taste for housing. The existence of a segregated equilibrium is shown in a calibrated two-community model assuming single-peaked distributions for both income and housing taste. The equilibrium features income segregation of the population across the communities. The segregation is, however, imperfect: some rich households can be found in poor communities and vice-versa. The calibrated model is able to explain the substantial differences in local income tax levels and average incomes across communities as observed in e.g. Switzerland. The numerical investigation reveals that the ordering of community characteristics critically depends on the substitutability between the public and the private good. The numerical investigation also suggests that taste heterogeneity reduces the distributional effects of local tax differences. The numerical investigation furthermore suggests that the rich community can set lower taxes when it is small.

© 2005 Elsevier B.V. All rights reserved.

JEL classification: H71; H73; R13

Keywords: Income segregation; Income sorting; Fiscal decentralization; Income taxation; Local public goods

1. Introduction

Decentralized financing of local public goods is a natural counterpart of decentralized decision about their provision. As Oates (1972) argued, local units deciding upon public programs are more likely to trade off costs against benefits if these programs are financed by

* Tel.: +1 617 627 6394.

E-mail address: kurt.schmidheiny@tufts.edu.

local taxes. Fiscal Federalism is intensively debated in the European Union. On the one hand there are attempts to coordinate fiscal policies across EU member states. On the other hand, increased regional self-government, as implied by the subsidiarity principle, calls for some regional fiscal autonomy.

I develop a model of an urban area with local income taxes used to finance a local public good. Households differ in both incomes and their taste for housing. The existence of an asymmetric equilibrium is shown in a calibrated two-community model assuming single-peaked distributions for both income and housing taste. The equilibrium features income segregation of the population across communities. This segregation is, however, imperfect: some rich households can be found in on average poor communities and some poor households can be found in on average rich communities. The calibrated model is able to explain the substantial differences in local income tax levels and average incomes across communities as observed in e.g. Switzerland. In accordance with the empirical findings, the rich community shows lower taxes and both higher housing prices and a higher public goods provision than the poor community. This order of community characteristics depends, however, on the preferences for the local public good. The above ordering of community characteristics holds for low degrees of substitutability between public and private goods. When the public good is easily substituted by private goods, the rich community exhibits higher housing prices and higher public goods provision as well as higher taxes. The numerical investigation also suggests that taste heterogeneity reduces the distributional effects of local tax differences. The numerical investigation furthermore suggests that the ability of the rich community to set low taxes is higher when it is physically small. However, a tax haven need not be small.

Following Tiebout's (1956) seminal work, there is a long tradition of modelling fiscal decentralization at community level. The consideration of heterogeneous household incomes by Ellickson (1971) and Westhoff (1977) moved the focus away from seeking optimal community size to the study of urban areas with given community borders. While this strand of research was followed by a large number of studies investigating local *property* taxation (surveyed in Ross and Yinger, 1999, and Epple and Nechyba, 2004), there have been few contributions on local *income* taxation. Hansen and Kessler (2001a) elegantly study a local transfer financed by local income taxes in a model with inelastic housing demand and an exogenous Laffer curve. Calabrese (2001) studies local income taxation in a model similar to Hansen and Kessler's but with price responsive housing demand. Konishi (1996) provides an existence proof for equilibria in models with income taxation under weak assumptions. He does not study the extent of income sorting in the established equilibria.

Multi-community models with agents that differ in income typically predict *perfect* segregation of the population by income, i.e. households of the same income group live in the same community. However, recent literature on spatial income sorting (Epple and Sieg, 1999; Hardman and Ioannides, 2004; Ioannides, 2004; Bayer et al., 2004) forcefully demonstrate that the sorting is very imperfect. Rhode and Strumpf (2003) show a long term trend of decreasing income sorting despite falling costs of moving. Schmidheiny (in press) shows significant but imperfect sorting among movers in a metropolitan area. This clear empirical finding is almost completely missing in the theoretical literature. A notable exception are Epple and Platt (1998) who study a model with property taxation and show that the introduction of (continuous) heterogeneous tastes for housing indeed predicts a more realistic incomplete segregation of the population. Kessler and Lülfsmann (2005) introduce two types of households with high and low taste for the public good in a model with local income taxation to establish

Download English Version:

<https://daneshyari.com/en/article/983689>

Download Persian Version:

<https://daneshyari.com/article/983689>

[Daneshyari.com](https://daneshyari.com)