Journal of Public Economics 81 (2001) 193–212
JOURNAL OF PUBLIC ECONOMICS
www.elsevier.nl/locate/econbase

Optimal income tax in the presence of status effects

N.J. Ireland*

Department of Economics, University of Warwick, Coventry CV4 7AL, UK

Received 1 March 1999; received in revised form 1 March 2000; accepted 1 March 2000

Abstract

The existence of distortions from individuals competing to attain social status by using consumption signals justifies some measure of income tax as a counter-acting distortion. The question posed here is whether it also constitutes a reason for a more progressive income tax schedule. The answer is found to be broadly negative if progressiveness is interpreted as a more convex tax schedule, unless the rich are more concerned with status-seeking than the poor. On the other hand, status-seeking makes the optimal tax schedule steeper so that redistribution is increased. Essentially, the analysis of status-seeking based on a signaling approach confirms and strengthens the existing view of an optimal tax schedule, and can be incorporated into the Diamond [American Economic Review 88 (1998) 83–95] approach.

Keywords: Status; Signaling; Income tax

JEL classification: H2

1. Introduction

People live within a social context, and care about how they are judged by others. Thus individuals make economic decisions over consumption, savings and labor supply in part to affect such judgements. Early work by Hirsch (1976) used the concept of ''positional goods'' as those where consumption levels are observed and applied to rank people in terms of social status. Frank (1984, 1985a,b) has

*Tel.: +44-2476-523-476; fax: +44-2476-523-032.
E-mail address: n.j.ireland@warwick.ac.uk (N.J. Ireland).

0047-2727/01/$ – see front matter
PII: S0047-2727(00)00108-0

analyzed the distortions involved in responding to the possibility of improving one's social status by increased consumption of positional goods. Taxes on positional goods may be Pareto Optimal since they counter over-consumption and hence reduce distortions[1]. However, the direct taxing of positional goods may not be feasible. A number of reasons exist. The main ones are that the particular goods in question may change rapidly, and that they may be entangled with goods that are not affected by status contests. For instance, it would be difficult to tax a particular brand of sports shoe higher than other brands. After all, a fashionable sports shoe is still a sports shoe. Also, a four-wheel-drive car may be a necessary vehicle for the countryman but a status symbol for the townsman. Finally, the tax of certain goods at a discriminatory level may be outlawed by trade rules.

The difficulty of taxing positional goods has led to the suggestion that either general expenditure[2] or income is taxed, or rather that such taxes can be justified at least in part as correcting factors for distortions that arise from status contests. The argument is that since higher income (or expenditure) incurs higher tax, the real cost (which could be in terms of the amount of time spent working) of spending on status-seeking is higher, and this leads to lower quantities of ''positional goods'' being purchased. One approach (Ireland, 1998) models the process within a signaling game among a continuum of ''ability'' types, and considers linear income tax policies. The key result is that a small linear income tax can provide a Pareto optimal improvement.[3] Basically, those on low incomes gain from the redistribution of the tax as benefits, while those on high incomes gain from the lower expenditure necessary to retain their social standing within the new signaling equilibrium. The Pareto improvement is possible because the income tax acts counter to a distortion in labor supply: income tax prompts individuals to under-supply labor while status seeking prompts them to over-supply labor in order to fund more expenditure on status-yielding goods. In a signaling equilibrium, no social gain is achieved by signaling expenditure since all types are revealed, and the externalities of forcing others to spend more to signal their types are ignored in individuals' calculations. Hence an equilibrium with lower status expenditures is a less-distorted allocation and the justification for some measure of income tax is clear.

It is probable that the above result is robust to different approaches to modelling

[1] See Ireland (1994), Bernheim (1994) and Seidman (1987, 1988) among other contributions.

[2] See Frank (1988, 1999) for discussions of a consumption tax. In terms of our analysis here there is little difference between a consumption tax and an income tax. Frank is concerned with the bias to consume rather than save due to status-seeking and argues that a progressive consumption tax is the best policy to redress this distortion.

[3] Persson (1995) also looks for a Pareto-optimal tax within a two-types-of-individual model when relative consumption matters.