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Redistributive taxation and the household: the case of individual filings

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Abstract

In this paper I look at the tax treatment of households under individual filings and characterise the efficiency properties of an income tax schedule that redistributes from rich to poor households. Because tax liabilities are determined on individual incomes but the decision to earn those incomes is made at the household level, tax liable members of the same household can side trade leisure for net income with one another, and such side trade enables them to carry out tax arbitrage. I analyse the problem for a two-class economy both with and without perfect assortative mating. The main conclusion is that the prevention of tax arbitrage imposes structure on the graduation of the tax schedule.

JEL classification: H21; H31

Keywords: Individual filing; Optimal income taxation; Redistribution; Tax arbitrage; Household production

1. Introduction

Comparative tax studies for advanced economies (OECD: Messere, 1993; EU: O’Donoghue and Sutherland, 1999) show that many countries consider the individual as the tax unit. Most OECD countries apply this principle to some extent, and many recent tax reforms have substituted the family for the individual as the tax unit. What is the position of optimal income taxation theory in this respect? The standard model, as exposed by Mirrlees (1971) or Stiglitz (1982), typically assumes that the agent who makes the

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decision to earn an income is also the one who bears the legal tax incidence. Thus, it is well suited to discuss the taxation of singles or the taxation of household income. But when labour earnings are the result of a household decision *and* taxed at the individual level, the standard model becomes deficient and needs amendment. In this paper, I take the principle of individual taxation as given, and ask how an income tax system should treat labour income when the earnings decisions are made by a small coalition of people, as in a household with two income earners. In particular, I characterise the efficiency properties of a redistributive income tax system subject to such a household incentive compatibility requirement.

Since my aim is not to carry out a comparative analysis of family taxation regimes (joint vs. individual), I ignore differences in the labour supply elasticities of different household members, or the possible divergences between social and household preferences for redistribution.[1] Rather, I want to focus on an incentive problem that has been left out of the discussion so far, namely the tax arbitrage possibilities that an individually based tax system may offer to households.

The mechanism through which such arbitrage can occur is simple: within the household, its members can exchange leisure for consumption (disposable income) by rescheduling duties in housework and compensating each other for this. Such a side trade in leisure for money can easily be enforced by the presence of trust among the household members. When the government designs the tax schedule, it should take into account that people may engage in this kind of arbitrage. Put differently, it should make the tax system *household* incentive compatible. I will argue that the household incentive constraints, together with the skewness of the income distribution, put structure on the graduation of the optimal marginal tax rate. To formalise my argument, I build on the standard income taxation model for a two-class economy as exposed by Stiglitz (1982), and amend this model to allow for the fact that, within a household, people can co-ordinate their labour market and homework decisions.

It is not so difficult to understand why such co-ordination needs to be taken into account. Consider a two-class economy and suppose that the government has designed an individually incentive compatible tax system, so that a high ability person prefers to earn a high rather than low income level and pay the corresponding tax. Now, suppose in addition that two high ability persons form a household. They could agree that one of them takes a part time job on the labour market, earning a low income level with a low tax liability, and that the other earns a high income level with a high tax liability. To the extent that the individual incentive compatibility constraint is slack, the low income earner will initially enjoy a lower utility level. But the fact that both agents have taken a different stance in the

[1] Boskin (1975) and Boskin and Sheshinski (1983) were the first to investigate the question of whether the individual or the household is the appropriate tax unit. They provide Ramsey-type arguments against the practice of income splitting where husband and wife face the same marginal tax rate: the higher wage elasticity of the secondary worker warrants a lower marginal tax rate. Apps and Rees (1988, 1997a,b) build on the Boskin–Sheshinki model by introducing redistributional concerns within and across households and by allowing for production within the household of a private household good. In all these models, the marginal income tax rate is taken constant across income levels, but possibly conditioned on gender. Munnell (1980) discusses the incongruence of three basic axioms (progressivity, horizontal equity and neutrality w.r.t. marriage) in tax design.