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The effects of tax reform on labor supply, tax revenue and welfare when tax avoidance matters

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Abstract

We examine how tax avoidance in the form of trade in well-functioning asset markets affects the study of labor supply. We discuss the implications for tax policy analysis, and we show that a failure to account for avoidance responses may lead to huge errors when analyzing how tax reform affects labor supply, tax revenue and the welfare cost of taxation. Our model may explain a number of otherwise hard to understand dimensions of taxpayer response.

JEL classification: H31; J22
Keywords: Labor supply; Tax avoidance; Asset markets; Tax reform simulation

1. Introduction

How labor supply responds to taxation is one of the most intensively researched issues in empirical public finance. During the past decades, a large number of studies have explored various dimensions of labor supply choice and how tax reform affects hours supply. The static model of labor supply has been extended in several directions, including how to model decisions on labor force participation and the joint labor supply of spouses. Other studies have focused on intertemporal labor supply and on the impact of quantity constraints that force employees to work 'normal' hours.[1]

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[1] For recent surveys of the literature, see Blomquist (1996), Blundell and MaCurdy (1999) and Heckman (1993). For a general discussion of how the functional specification of labor supply equations affects the analysis of tax and benefit reforms, see Blundell et al. (1988).

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To this line of literature, which undoubtedly has advanced to a high level of methodological sophistication, we add a point which is conceptual rather than technical. Unlike previous studies, we assume that taxpayers supply labor while exploiting the opportunity for tax avoidance in the form of trade in well-functioning asset markets. Judging from the already enormous literature on labor supply, one may argue that the value added from yet another permutation is low. We believe, though, that the mechanisms analyzed in the present paper are quite relevant in countries with high marginal tax rates, non-uniform capital taxation and developed financial markets. In countries with less developed financial markets, lower marginal tax rates and/or uniform capital taxation, there is less scope for avoidance. Even so, the pace of innovation in financial markets and the documented ingenuity of taxpayers in exploiting asymmetries in the tax code suggest that our topic is of more general interest.

In an earlier paper, Agell and Persson (2000), we show that tax avoidance in the form of asset trade has dramatic implications for the normative and positive theory of labor supply and taxation. Although the bulk of that paper relied on a highly simplified model with unlimited trade in an inside asset, we also characterized the first order conditions for the individual's labor supply decision in an economy with restrictions on short sales. In the present paper, we work out the implications for how taxes affect hours supply, tax revenue and welfare. We believe that this extension has quite important implications for tax reform analysis in general, and tax reform simulation in particular.

One of the hoped-for effects from the wave of tax reforms that swept industrialized countries during the 1980s and early 1990s was that reduced tax progression would boost work incentives. A common ingredient to the reform process was micro-simulation analysis of labor supply response.[2] We show that failure to account for tax avoidance may lead to predictions about labor supply, tax revenue and excess burden, which are wide off the mark, quantitatively and qualitatively. For high-income earners, the forecast errors might be on the order of several hundred percent. We also believe, as we discuss towards the end of the paper, that our model fits important stylized facts about taxpayer response in Sweden during the 1980s and early 1990s, when the system of income taxation changed quite substantially. In the wake of these tax reform efforts, taxpayer behavior changed dramatically along various dimensions, and our model provides a simple rationalization of these responses.

2. Some stylized facts on tax avoidance

A general avoidance strategy is to claim deductible expenses against fully taxable income and to report income in forms granted preferential tax treatment. In Sweden, before the 1990–1991 tax reform, high-income earners could exploit a number of asset transactions to escape taxation. These transactions ranged from complex schemes of trans-

[2] See, e.g., the articles in the 1990 special issue of *The Journal of Human Resources* (volume XXV, issue 3). For recent micro-simulation studies of labor supply response to tax reform, see, e.g., Blomquist et al. (1998) and Aronsson and Palme (1998), who examine the Swedish tax reform of 1990–1991, Aaberge et al. (1995), who analyze the labor supply effects from Norwegian tax reform, and Ziliak and Kniesner (1999), who report tax reform simulations using a life-cycle labor supply model, estimated on U.S. data. None of these papers allows for an avoidance response.