ELSEVIER

Journal of Public Economics 80 (2001) 341–356

JOURNAL OF PUBLIC ECONOMICS

www.elsevier.nl/locate/econbase

The effect of marginal tax rates on taxable income: a panel study of the 1988 tax flattening in Canada

Mary-Anne Sillamaa[a], Michael R. Veall[b,]*

[a]Statistics Canada, Ottawa, Ontario, KIA OT6, Canada

[b]SEDAP and McMaster University, Hamilton, Ontario, Canada L8S 4M4

Received 28 February 1999; received in revised form 31 August 2000; accepted 31 August 2000

Abstract

Federal tax reform in 1988 flattened the Canadian personal income tax schedule, changing the marginal tax rates for many individuals. Using methods similar to those applied by Auten and Carroll [Rev. Econ. 81(4) (1999) 681] in the study of the effects of the 1986 U.S. Tax Reform Act, we estimate the responsiveness of income to changes in taxes to be substantially smaller in Canada. However we find evidence of a much higher response in self-employment income, in the labor income of seniors and from those with high incomes.

Keywords: Marginal tax rate effects on taxable income; Tax avoidance

JEL classification: H24; Personal income and other nonbusiness taxes and subsidies

1. Introduction

Canada undertook a major personal income tax reform in 1988. While changes in marginal tax rates were not as substantial as they were in either of the United States tax reforms of 1981 or 1986, it nonetheless seems remiss that the effects have not been widely studied. This is in sharp contrast to the literature on U.S. tax reform: see for example the survey of Auerbach and Slemrod (1997) and the book

*Corresponding author. Tel.: +1-905-525-9140 ext. 23829; fax: +1-905-521-8232.

E-mail address: veall@mcmaster.ca (M.R. Veall).

0047-2727/01/$ – see front matter
PII: S0047-2727(00)00128-6

edited by Slemrod (1990). Our goal is to determine what can be learned from the Canadian experience, in particular with respect to estimation of the response of taxable income to changes in tax rates.

The responsiveness of taxable income to changes in tax rates (henceforward, the 'tax-price elasticity') has been a particular focus of the U.S. research. Blundell and MaCurdy (1999), Slemrod (1998), Saez (1999), Auten and Carroll (1999, henceforward AC) and Gruber and Saez (2000) either are surveys or include brief surveys and provide many other references. The size of this elasticity helps determine the social marginal cost per dollar revenue raised by the personal income tax system and hence is important in determining both the optimal tax mix and the optimal size of the public sector. The potential response in household taxable income to changes in personal income tax rates includes the standard focus of introductory economics classes such as changes in labor supply and saving behavior. However as particularly emphasized by Slemrod (1998), a number of other types of responses are likely important. Some of these are described in everyday parlance as 'tax planning' and include changes in the timing of income realization as well as tax avoidance by such measures as changing the form of compensation or the type of assets held. Responses may also include tax evasion as well as a variety of behavioral changes that may change the timing and nature of tax deductions and tax credits.

The nature of Canadian tax reform is discussed in Section 2. Section 3 describes the data: the availability of a very large taxfiler data set for Canada is one of the motivations for this research. The empirical model is discussed in Section 4. Section 5 provides the empirical results. To anticipate this section, using a method and specification very similar to that used by AC for the United States, we estimate that the tax-price elasticity is relatively small in Canada. However, when we focus on self-employment income, the labor income of seniors or on individuals with high incomes, the results are consistent with a larger response to tax rates. Naturally any differences between results for Canada and results for other countries do not necessarily imply that the labor supply or saving behavior of Canadians is different: the differences could be as a result of differences in personal income tax systems. Section 6 concludes.

2. Tax reform in Canada

The Canadian personal income tax system is individually based in the sense that there is no such thing as a joint return by spouses: all those with significant income must file singly. However, in some cases individuals with low income spouses can claim a deduction for that spouse, and the spouse will not file. Both the federal government and each province and territory have a personal income tax; for every province and territory except Quebec, the provincial/territorial basic personal income tax is a given percentage of the federal tax, although this percentage varies