Welfare and optimum dynamic taxation of consumption and income

Wilbur John Coleman II*

Fuqua School of Business, Duke University, Durham, NC 27708-0120, USA

Received 1 February 1998; accepted 1 March 1999

Abstract

This paper estimates that the US could attain large welfare gains by implementing an optimal Ramsey tax policy that taxes consumption and income. It is also found that the welfare implications associated with taxing consumption are quantitatively more important than those associated with dynamically taxing income. Indeed, replacing income taxes with a constant consumption tax leads to a welfare gain that is only slightly lower than that attained by a dynamic policy that taxes consumption and income. In computing these welfare gains, careful attention is given to the dynamic path of tax rates and the transitional dynamics associated with how the economy responds to a new tax policy. © 2000 Elsevier Science S.A. All rights reserved.

Keywords: Optimal taxation; Consumption taxes; Dynamic taxation; Welfare

JEL classification: E61; E62; H21

1. Introduction

This paper derives the optimal dynamic taxation of consumption, income from labor, and income from capital, and estimates the welfare gain that the US could attain by switching from its current income tax policy to an optimal dynamic tax policy. In estimating this welfare gain, particular attention is paid to the
transitional dynamics of optimal tax rates over time, which are quite complicated, and the associated response of the economy to these tax rates. It is found that this welfare gain is substantial. Moreover, it is found that almost all of this welfare gain can be attained simply by replacing all taxes with a tax on consumption that is constant through time. Evidently, the implicit capital levy embedded in a constant consumption tax is sufficient for such a tax policy to generate large welfare gains.

To place this paper into the context of the vast literature on optimal taxation, recall that Ramsey’s (1927) contribution was to solve for the optimum taxation of various commodities. As noted by Auerbach (1985) in his summary of the literature on optimal taxation since Ramsey’s contribution, with the presence of an inelastically-supplied factor of production the first-best solution can be attained by an equal proportional tax on all commodities. Such a tax policy is implicitly a tax on the inelastic factor, which is non-distortionary. Due to this equivalence, much of the literature has considered optimum taxation when there does not exist an inelastically-supplied factor of production. Judd (1985b), Chamley (1986), and Lucas (1990) specialized this set-up along two dimensions. First, they considered an economy in which the commodities consisted of consumption and leisure over time, production required labor and capital, and in which preferences were recursive. The economy’s initial stock of capital is thus an inelastically-supplied factor of production. Second, they assumed that the consumption of goods in every period is untaxed. The only taxes available were time-varying taxes on income from capital and labor. Hence, they directly ruled out uniform taxation of all commodities, and in this way ruled out a pure capital levy.

The special intertemporal structure considered by Judd, Chamley, and Lucas yielded many important insights concerning the optimal taxation of income over time. For instance, as described by Chamley (1986), the dynamic Ramsey income tax policy is characterized by a 100% tax rate on the income from capital for some initial period of time, which is followed by a tax rate on income from capital that falls to zero over time. As described by Lucas (1990), this optimal path of tax rates reflects a tradeoff: the initial confiscatory tax rates on capital income are an attempt to tax the initial stock of capital, and the zero tax on capital income in the long run is an attempt to tax consumption at the same rate through time (i.e. to not penalize savings). The length of the initial period of confiscatory taxation of the income from capital is endogenously determined, and depends on such things as the amount of government spending that needs to be financed, households’

---

1Later papers by Aiyagari (1995) and Judd (1997), for example, have constructed model economies in which it is optimal to not have the tax on capital income converge to zero in the long run. In Aiyagari’s paper incomplete markets generate precautionary savings that lead to an overaccumulation of capital which can be offset by a positive tax. In Judd’s paper monopolistic behavior leads to an underproduction of goods which can be offset by a negative tax.
دریافت فوری
متن کامل مقاله
امکان دانلود نسخه تمام متن مقالات انگلیسی
امکان دانلود نسخه ترجمه شده مقالات
پذیرش سفارش ترجمه تخصصی
امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
امکان دانلود رایگان ۲ صفحه اول هر مقاله
امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
دانلود فوری مقاله پس از پرداخت آنلاین
پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات