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Employment- and growth effects of tax reforms

Jochen Michaelis [a,*], Angela Birk [b]

[a] University of Kassel, Economics Department, Nora-Platiel-Str. 4, D-34127 Kassel, Germany
[b] Louisiana State University, Department of Economics, CEBA 2115, Baton Rouge, LA 70803, USA

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Abstract

Since the mid-1990s almost all OECD countries have engaged in fundamental reforms of their tax systems. There is a trend towards higher social security contributions and lower tax rates on personal and corporate income. This paper explores whether these tax policy measures are effective means for reducing unemployment and accelerating economic growth. Using a Pissarides type search model with endogenous growth, we analyze how savings and the incentive to create new jobs are affected by revenue-neutral tax swaps between wage income taxes, payroll taxes, capital income taxes and taxes levied on capital costs. In our framework, cutting the capital income tax (reducing the double taxation of dividend income) financed by a higher payroll tax turns out to be superior, such a policy mix fosters both employment and growth. Most other tax reforms imply a trade-off between employment and growth.

JEL classification: E6; H2; J6; O4

Keywords: Search unemployment; Growth; Tax reform

1. Introduction

In the quest for effective means of reducing unemployment and/or accelerating growth, tax policy reforms have always been a key item on the policy agenda of many OECD countries. Almost all tax reforms of the last two decades can be characterized as rate reducing and base broadening reforms. Concerning the tax structure one clear trend is the growth in social security contributions. In most recent years this trend has come to a hold, but due to population aging the demand for an increase in these payroll taxes will probably grow

* Corresponding author. Tel.: +49 561 804 3562; fax: +49 561 804 3083.
E-mail addresses: michaelis@wirtschaft.uni-kassel.de (J. Michaelis), abirk@lsu.edu (A. Birk).

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significantly again. Another clear trend is the reduction in the rates of personal and corporate income taxes. The marginal tax rates for individuals with high wage income were eased between 2000 and 2003 by about 2.2 percentage points in the OECD countries and by 2.9 percentage points in the EU15. Similarly, between 2000 and 2003 the corporate income tax rates dropped on average by 2.8 percentage points in the OECD countries and by 3.4 percentage points in the EU15 (see OECD, 2004). Are these tax policy measures really helpful in alleviating the unemployment and growth problems? Our formal study sheds some light on this issue by analyzing the employment and growth effects of revenue-neutral tax reforms in a Pissarides (2000) type matching model with endogenous growth. In order to cover a broad range of actual reform plans currently discussed in many OECD countries, we integrate four taxes into the model, namely a wage income tax, a capital income tax, a payroll tax, and a tax on capital input.

Our analytical framework merges three strands of literature. First is the literature on the employment effects of tax reforms. Most theoretical and empirical research finds a negative, but limited, linkage between employment and the tax wedge, defined as the difference between the gross labor costs that a firm has to pay and the after-tax wage income of workers (see Layard and Nickell, 1999; Blanchard and Wolfers, 2000). Daveri and Tabellini (2000) emphasize the level at which wage bargaining takes place. Taxes on labor seem to matter less in countries where bargaining is either highly decentralized (as in the United States and the United Kingdom) or highly centralized (as in the Scandinavian countries and Austria). In these countries higher labor taxes are (partly) absorbed by a decline in gross wages limiting the increase in labor costs and thus the negative effect on employment. In the "continental European" countries, however, where the bargain is done at the industry level (France and Germany, for instance), the tax wedge has a large influence on labor costs and employment. Somewhat controversial is the importance of the structure of the tax wedge. According to Nickell (1997), only the overall size matters. On the other hand, the studies of Symons and Robertson (1990), Koskela and Vilmunen (1996) and Böhringer et al. (2005) indicate that, for example, a revenue-neutral shift from payroll taxes to a more progressive wage tax is good for employment.

The second strand of research is on the growth effects of tax policies. In endogenous growth models the steady-state growth rate depends on the net rate of return on investment in human and physical capital, which, in turn, depends on various tax variables. The theoretical literature is reasonably clear. Almost all taxes, being it the components of the tax wedge, the capital income tax or the consumption tax, are detrimental to growth, since these taxes distort the investment decisions of agents with respect to physical and/or human capital. This has been shown, among others, by Rebelo (1991), Milesi-Ferretti and Roubini (1998), and Turnovsky (2000). The empirical evidence is very much in line with the theoretical predictions (see Easterly and Rebelo, 1993; Kneller et al., 1999). The third strand of research we refer to is on the interaction between employment and growth (for surveys see Birk, 2001a; Arićó, 2003). If growth comes through creative destruction (Aghion and Howitt, 1992), the flow of workers into the pool of unemployed and thus the equilibrium unemployment rate is increasing in the growth rate of the economy. On the other hand, a higher equilibrium growth rate induces higher future revenues and thus rising vacancies that lead to more employment (capitalization effect, see Bean and Pissarides, 1993). Bräuninger (2000) investigates the feedback impact of unemployment on the rate of growth of the economy via savings and capital accumulation. All these studies come to the same conclusion: the relationship between unemployment and growth is not very robust and thus difficult to sign. The mixed evidence from empirical work by Davis and Haltiwanger