On the Equivalence of Taxes Paid by Employers and Employees*

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Abstract

In this paper we study the employment effects of a budget neutral restructuring of taxes levied on employers and employees. We derive conditions for taxes levied on workers to have the same employment effects as taxes levied on firms under standard processes of wage determination.

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Introduction

Most countries finance their expenditures and the social security by a mix of taxes paid by workers and by employers. Generally the taxes are related to the wages received by employees. This raises the question of the equivalence of these taxes: do taxes levied on wages have the same impact on employment if they are paid by workers or by firms? Put in another way, does a switch between taxes paid by employers and taxes paid by employees affect employment? Clearly the answer is no in a perfectly competitive market: replacing an employer's tax by an employee's tax of equal magnitude has no effect on the net wage, the gross wage or the employment level (Symons and Robertson (1990)). Still empirical evidence suggests that the answer is yes (see e.g. Holm et al. (1994)), and union leaders would surely not be indifferent to an increase in the employees' taxation rate that would be compensated by a decrease in the employers' taxation rate. Therefore there is a need to depart from perfectly competitive markets to fit the facts[1]. This is what is done in a union framework by Rasmussen (1993) or Holm et al. (1995). However these models heavily rely on a non linear taxation to explain the non equivalence result. In this paper we show that even in the case of linear taxation, both taxes may not be equivalent and we extend the results to non-union frameworks.

We first derive conditions for the equivalence (Section 1). Then we check whether these conditions hold under different processes of wage determination. We show that they hold for perfectly competitive labor markets but not necessarily in the case of minimum wages (Section 2). Then we develop an efficiency wage model (Section 3), and a bargaining model (Section 4). We show in which circumstances the conditions hold in these models. This is followed by concluding remarks.

1 A General Condition for Equivalence

In this section we derive a condition for taxes levied on employers to have the same effect on employment as taxes levied on workers. For clarity we introduce the following terminology:

1. w is the market wage;

2. $w(1+t)$ is the gross wage and t is the tax rate for the employers;

[1] This departure from perfectly competitive markets is also needed to explain why a tax per head has a different employment impact than a tax on the wage bill (see e.g. Pisauro (1991), or Rasmussen (1997, 1998)).