

into the other, one obtains an equation that defines the optimal ratio between the two tax rates. This equation shares the two main characteristics of (3.36). First, the optimal tax ratio does not depend on the shape of the social welfare functional as the expression in square brackets in (5.4) has been eliminated through the substitution. Second, the two tax rates have opposite signs, as they bring about opposite changes in wage distribution.

Following the same steps, one can also generalise the conclusions reached under an optimal non-linear income tax.

## 6. Concluding remarks

The analysis developed in the paper shows that source- and origin-based taxes are constrained-efficient instruments in a small open economy when consumers differ in skills and the government cannot implement the optimal differential linear taxation of labour since it cannot directly observe individuals' characteristics. The rationale for such taxes is quite different from the one provided by the existing literature, which studies large open economies where source-based taxation is seen as a substitute for residence-based taxation.

In a small open economy source- and origin-based taxes are shifted completely onto immobile labour. Where a linear tax is levied on labour income, source- and origin-based taxes can act as substitutes for differential taxation of labour if the various types of labour bear a different tax burden. By contrast, if a non-linear tax is levied on labour income, source- and origin-based taxes cannot directly improve income distribution as the two types of labour are taxed at two different marginal rates. However, they may still improve social welfare as they relax the self-selection constraint that binds the non-linear tax by changing the distribution of gross

wages.

This paper provides a basis for understanding tax policies in small open economies. Further research is needed to investigate whether actual tax-setting behaviour is consistent with the results obtained. To this purpose, both a theoretical and an empirical analysis of source- and origin-based tax incidence are of crucial importance.

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