

# Optimal/Fair taxation and partial control: theory and evidence

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## Abstract

Since Mirrlees (1971), the modern income tax literature typically starts from a welfare maximizing social planner who wants to redistribute earnings on the basis of a distortionary income tax. The underlying reason for using distortionary taxes on earnings is the impossibility of using non-distortionary lump-sum taxes on ability, since the latter is not observed by the social planner. In practice however, tax-benefit schemes are based on much more information than earnings only. Different theoretical reasons, related to efficiency and equity, have been put forward. In this paper, we want to derive and test an optimal tax-benefit scheme based on several characteristics, which differ in terms of the degree of control, i.e., the extent to which a characteristic can be changed by exerting effort. Our theoretical model provides us with a testable relation between the tax rates on the two characteristics and their variance-covariance structure. We then set up an empirical model with a finite number of characteristics which allows us to estimate the tax (or subsidy) rates for the different characteristics in different European countries using the 2007 EU-SILC data. Partitioning the set of characteristics into characteristics with zero control -sex, age and disability- and characteristics with partial control- education and household composition-, output can be rewritten as a function of two "composite" characteristics, one with partial and one with no control as in the "Akerlof"-case. There is a clear tendency in all countries to compensate more for the "no control"-composite compared to the "partial control"-composite. In addition, when testing the empirical counterpart of the theoretical tax formula in the "Akerlof"-case, we cannot reject that some countries are fair.