Optimal Tax Policy and Endogenous Growth through Innovation[*]

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Abstract

We investigate optimal tax policy in a Romer-style endogenous growth model. We derive formulas for the optimal tax rates on capital, labour, and innovation on a balanced growth path. We compute the balanced growth path and the transition to it with optimal policy for a range of parameter values. We find that capital should be taxed in the short run, but be paid its marginal product in the long run. The returns to innovation and production labour, on the other hand, should always be lower than their marginal products. Whether the resulting taxes on innovative activity should be positive or negative depends on (a) the extent of government spending needs, (b) the importance of innovation externalities and (c) the market power of patent holders. The welfare gains from optimal policy are much larger than in a comparable exogenous growth model.

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